



BERKSHIRE FLYER: PITTSFIELD TO NEW YORK CITY

FEASIBILITY STUDY

**DEVELOPED IN SUPPORT OF
THE BERKSHIRE FLYER WORKING GROUP**

March 26, 2018

Berkshire Flyer: Pittsfield-New York City Feasibility Study

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Feasibility Study

Developed by:
MassDOT Transit & Rail Division

In support of:
The Berkshire Flyer Working Group

Study Support Provided by:

STV Inc.
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Berkshire Flyer: Pittsfield-New York City Feasibility Study

TABLE OF CONTENTS

1	Introduction and Background	1
1.1	Study Goals	1
1.2	Study Development Process	2
1.2.1	Berkshire Flyer Working Group	2
1.2.2	Working Group meetings	3
1.3	Potential Passenger Rail Service	3
1.3.1	Cape Flyer Rail Service	4
1.3.2	Framework for Berkshire Flyer Service	6
1.4	Existing Services	6
1.4.1	Existing Amtrak Services	8
2	Alternatives	9
2.1	Potential Routes	9
2.1.1	Albany/Rensselaer Route	10
2.1.2	Schodack Subdivision Route	13
2.2	Potential Services	16
2.2.1	Option 1A- Empire Corridor Extension	17
2.2.2	Option 1B – Berkshire Flyer Express	19
2.2.3	Option 2 – Schodack Subdivision Service	21
3	Capital Cost Estimates	23
3.1	Required Capital	23
3.1.1	Track Improvements	23
3.1.2	Station Improvements	24
3.1.3	Rolling Stock	25
3.2	Capital Cost Estimate Summary	25
4	Operating Cost Estimates	27
4.1	Option 1A	27
4.2	Option 1B	28
4.3	Option 2	28
5	Alternatives ASSESSMENT	29
5.1	Option 1A	29
5.2	Option 1B	29

Berkshire Flyer: Pittsfield-New York City Feasibility Study

5.3	Option 2.....	30
6	Fare Analysis	31
6.1	Existing Fares	31
6.2	Berkshire Flyer Fares	32
7	Market Analysis – market IDENTIFICATION AND Development.....	34
7.1	Travel Markets	34
7.1.1	Berkshire County Attractions Market.....	34
7.1.2	Second Home Market	35
7.1.3	Zero Car Households	35
7.2	Destination Transportation Options (Last Mile)	38
7.3	Peer Comparisons.....	39
7.4	Travel Demand.....	40
7.5	Amtrak Travel Model.....	43
7.6	Regional Benefits	43
7.6.1	Tourist Economy and Marketing	43
7.6.2	Examples of Intercity Rail Service Marketing by Service Sponsors	45
7.6.3	Regional Market Benefits	45
8	Next Steps	47
8.1	Study Summary	47
8.2	Implementation Actions	47
8.3	Next Steps	50

LIST OF FIGURES

Figure 1: Cape Flyer Route.....	4
Figure 3: Cape Flyer Stations	5
Figure 4: Cape Flyer Ridership.....	5
Figure 5: Cape Flyer Amenities.....	5
Figure 6: Albany/Rensselaer Station & Transit Center	Error! Bookmark not defined.
Figure 7: South view of Albany Bus Terminal	8
Figure 8: Logos of Existing Amtrak Services.....	8
Figure 9: Berkshire Flyer Albany /Rensselaer Route	10
Figure 10: Berkshire Flyer Schodack Subdivision Route.....	13
Figure 11: Berkshire Flyer Schodack Subdivision Route – New Connection Track Aerial View.....	15
Figure 12: Berkshire Flyer Schodack Subdivision Route Environmental Resources.....	16
Figure 14: Berkshire County Monthly Occupancy Rates	35
Figure 15: Berkshire County Second Home Owners from New York City Metropolitan Area...	36
Figure 16 Major Attractions in Berkshire County (Image Source: MassDOT).....	44

LIST OF TABLES

Table 1: Cape Flyer Schedule	4
Table 2: Berkshire Flyer Alternatives Matrix	9
Table 3: Contemplated Suggested Schedules - Option 1A	19
Table 4: Capital Cost Estimate Summary	25
Table 5: Option 1A Operating Cost Estimate Summary	27
Table 6: Number of Second Home owners from New York area by town.....	37
Table 7: Annual Trips New York County to Central Vermont (Ethan Allen Service).....	41
Table 8: Annual Trips New York County to Lake George/Fort Edwards (Ethan Allen/Adirondack Service)	42
Table 9: Annual Trips New York County to Berkshire County	42

APPENDIX

Appendix A – Berkshire County Tourism Impacts
Appendix B – Pittsfield Wye Track
Appendix C – Berkshire Flyer Market Research Report developed by students from the Massachusetts College of Liberal Arts
Appendix D - Berkshire Flyer Route Alternative Schematic Plans
Appendix E - CSX Passenger Train Access Principles
Appendix F – Airbnb Data

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1 INTRODUCTION AND BACKGROUND

1.1 Study Goals

This study is the result of legislation directing MassDOT to assemble a working group of key stakeholders to provide expertise to study the potential for initiating a new rail service in Berkshire County. Specifically the legislation reads:

SECTION 137. The Massachusetts Department of Transportation shall convene a working group, not later than October 1, 2017, to identify and evaluate the economic and cultural benefits and political, legal or logistical challenges to the Berkshire and western Massachusetts regions of the commonwealth and the commonwealth as a whole of establishing direct seasonal weekend passenger rail service between the City of New York, New York and the City of Pittsfield between Memorial Day and Columbus Day weekends modeled on the CapeFLYER passenger rail. The working group shall contact state, local and county officials of the state of New York to identify opportunities for collaboration and mutually beneficial improvements and expansions in passenger rail infrastructure and service.

The working group shall include, but not be limited to, a designee from the secretary of housing and economic development, elected officials from the state and federal legislative delegations, the duly elected mayor of city of Pittsfield, the Berkshire County Regional Planning Commission and existing rail service stakeholders. The secretary of the Massachusetts Department of Transportation shall designate a qualified individual to chair the working group.

The working group shall submit its findings to the Massachusetts Department of Transportation, the senate and house chairs of the joint committee on transportation, the chairs of the senate and house committees on ways and means and the senate and house chairs of the joint committee on tourism, arts and cultural development on or before March 1, 2018.

The purpose of the Berkshire Flyer Study is to evaluate the potential for using a route through New York to provide seasonal, weekend-focused passenger rail service between Pittsfield, MA and New York City. The goal of the seasonal rail service is to improve the linkage between the regional economic engines of New York City and Berkshire County.

Specifically, the study goals are to document the political, legal and logistical challenges of implementing direct seasonal service, while also identifying and evaluating the economic and cultural benefits of such a service. These goals will be achieved through a study framework that will highlight challenges and benefits to various attributes of a potential service. The study is organized by:

- identifying and evaluating potential routes,
- estimating capital and operating costs, and
- summarizing key factors in the potential market demand for service.

It is not the goal of the study to provide a detailed investigation of every implementation challenge, each service issue, or all of the economic benefits that such a service could provide,

but rather to develop an overview of the scope of investment, the level of demand, and the types of benefits.

The preliminary idea for service is to implement a passenger rail service that operates in a manner similar to the successful Cape Flyer. The Cape Flyer is a service that operates on weekends between Memorial Day and Labor Day, providing passenger rail service between Boston, MA and Hyannis, MA. The service operates as an extension of the Massachusetts Bay Transportation Authority's (MBTA's) Middleboro Line and generally serves passengers that are destined for weekend trips to destinations on Cape Cod or the Islands. The service hosts about 14,000 trips each summer.

1.2 Study Development Process

1.2.1 Berkshire Flyer Working Group

The Berkshire Flyer Working Group was convened on September 26, 2017 to carry out the charge identified in the above-cited legislation. As noted, the Working Group is made up of various stakeholders across Berkshire County that have some working knowledge of existing Berkshire County transportation, tourism and economic development issues. The group was structured so that it could reach conclusions on potential benefits of implementing a seasonal passenger rail service in the short five-month period of the study.

The following persons were invited to participate in the Berkshire Flyer Working Group as members:

- Senator Adam Hinds, Massachusetts Legislature
- Mayor Linda Tyer, City of Pittsfield
- Nathaniel Karns, Berkshire Planning Commission
- Caroline Mael, Amtrak
- Maurice O'Connell, CSX Transportation
- Francisca Heming, MassDOT Highway District 1
- Erica Kreuter, Executive Office of Housing and Economic Development - MassWorks Infrastructure Program
- Rep. Richard Neal, U.S. Congress District 1 Representative
- Rep. Smitty Pignatelli, Massachusetts Legislature
- Rep. Tricia Farley-Bouvier, Massachusetts Legislature
- Billy Keane, Berkshire Board of Realtors
- Jay Green, Berkshire Scenic Railroad
- Eddie Sporn, Robin Road Consulting
- Michael Knapik, Office of the Governor - Western Massachusetts Office
- Tony Mazzucco, Town of Adams
- Robert Malnati, Berkshire Regional Transit Authority
- Jonathan Butler, 1Berkshire

Additionally, the following delegates regularly attended meetings:

- Adrian Servetnick (Executive Office of Housing and Development)
- Alfred Enchill (Senator Hinds Office)

- Clete Kus (Berkshire Regional Planning Commission)
- Deanna Ruffer (City of Pittsfield)
- Kevin Chittenden (Amtrak)
- Matthew Russett (U.S. Congressman Neal's Office)
- Peter Frieri (MassDOT Highway District 1)
- Roberta McCulloch-Dews (City of Pittsfield)
- Sarah Vallieres (Berkshire Regional Transit Authority).

The Working Group also received assistance from Dr. Erin Kiley and her students at the Massachusetts College of Liberal Arts.

1.2.2 Working Group meetings

Berkshire Flyer Working Group meetings were held on the following dates:

- September 26, 2017
- October 17, 2017
- November 27, 2017
- December 18, 2017
- January 30, 2018
- February 13, 2018

Meetings were held at either the Berkshire Regional Transit Authority's offices in Pittsfield, or the MassDOT District 1 Office in Lee. All Working Group meetings were noticed and open to the public.

The main themes and discussions at each meeting were:

- Meeting #1 – Introductions and Review of Cape Flyer Service,
- Meeting #2 – Target Travel Market Discussion and Role of Consultant Support,
- Meeting #3 – Route Alternatives,
- Meeting #4 – Finalization of Route Options, Capital Costs, Travel Data Needs,
- Meeting #5 – Tourism Market, Last Mile Connections, Fare Comparisons, and
- Meeting #6 – Draft Recommendations.

1.3 Potential Passenger Rail Service

Before any details can be developed for a passenger rail service, it is first important to define the purpose and travel markets to be served. This section starts by providing an overview of the seasonal Cape Flyer Passenger Rail Service, which serves as a model for the Berkshire Flyer. This is followed by an overview of the attributes being considered to meet the goals for the Berkshire Flyer.

The potential service attributes were discussed and reviewed by the Working Group. Although members of the Working Group hope that the service goals would change and expand over time, it was agreed that the service would be examined as a limited service that could test the market.

1.3.1 Cape Flyer Rail Service

The Cape Flyer service was initiated in the summer of 2013. It is the first passenger rail operation to serve passengers traveling to Cape Cod since Amtrak's Cape Codder ceased operation in 1996. As the Cape Codder service was focused on providing service between New York City and Cape Cod, the Cape Flyer is the first direct rail service between South Station in Boston and Cape Cod since 1961.

The service runs on weekends and holidays between Memorial Day weekend and Labor Day weekend and is operated by the Cape Cod Regional Transit Authority (CCRTA) in collaboration with MBTA and MassDOT. CCRTA is responsible for non-operations elements, such as marketing, advertising and managing last-mile connections. Although the service has been covering its operating costs, as the service sponsor, CCRTA is responsible for any operating costs if revenue does not meet projections. CCRTA has also invested in marketing and has organized promotions to increase ridership.



Figure 1: Cape Flyer Route

Table 1: Cape Flyer Schedule

Boston to Hyannis	FRIDAYS	Hyannis to Boston	FRIDAYS
5:50PM	South Station	9:00PM	Hyannis
6:10PM	Braintree	10:00PM	Buzzards Bay
6:23PM	Brockton	10:10PM	Wareham Village
6:40PM	Middleborough/Lakeville	10:30PM	Middleborough/Lakeville
7:05PM	Wareham Village	10:46PM	Brockton
7:15PM	Buzzards Bay	11:00PM	Braintree
8:15PM	Hyannis	11:18PM	South Station

Boston to Hyannis	SATURDAYS AND SUNDAYS	Hyannis to Boston	SATURDAYS AND SUNDAYS
8:00AM	South Station	6:40PM	Hyannis
8:20AM	Braintree	7:40PM	Buzzards Bay
8:33AM	Brockton	7:50PM	Wareham Village
8:52AM	Middleborough/Lakeville	8:10PM	Middleborough/Lakeville
9:10AM	Wareham Village	8:26PM	Brockton
9:20AM	Buzzards Bay	8:42PM	Braintree
10:20AM	Hyannis	9:02PM	South Station

The service operates 78 miles between South Station, Boston and Hyannis, MA, a trip that takes about 2 hours 20 minutes. When the service was initiated it was operated as an extension of existing MBTA commuter rail service between Boston and Middleboro/Lakeville. It continues to operate along that segment of MBTA-owned tracks and stops at stations in Braintree and Brockton. On the MassDOT-owned segment from Middleboro/Lakeville to Hyannis the service also stops at stations in Wareham, Bourne/Buzzards Bay. The stations in Wareham, Buzzards Bay and Hyannis were last used for the Cape Codder service, but all required accessibility-related improvements specifically for the Cape Flyer service. Incremental service improvements have been made over the years, for example adding station stops and introducing a dedicated train that eliminates the need to mix of commuter and tourist passengers. However, the Cape Flyer always has been required to maintain a schedule that avoids any conflict with existing commuter service operations.



Source: Pi.1415926535



Source: Kevin Rutherford
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Figure 2: Cape Flyer Stations

The Cape Flyer service has been in operation for five summers, providing between 12,000 and 17,000 trips each season. Ridership varies from weekend to weekend but is strongest in the heavy vacation periods of July and early August.

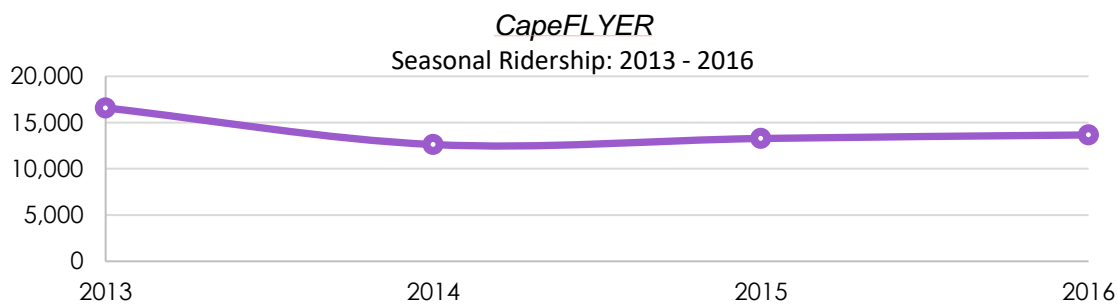


Figure 3: Cape Flyer Ridership

Because the service is focused on the tourist market, the CCRTA and the operator have worked to ensure that passengers have the types of amenities that are important to discretionary riders. They have responded to the needs of their customers by providing:

- Free Wifi/Internet,
- On-board bicycle storage, and
- A Café Car to provide food and beverage storage during the trip.

There is parking at each of the stations, with the following rates:

- South Station – nearby lots from \$5 per half hour to \$30 per day
- Braintree Station - \$7 per day
- Brockton Station - \$3 per day
- Middleboro/Lakeville Station - \$4 per day
- Wareham Station – free
- Buzzards Bay Station – free
- Hyannis Transportation Center - \$10 per day



Figure 4: Cape Flyer Amenities

Fares are generally at or slightly above the market rates established by the intercity bus providers. Sample fares for the service are as follows:

- South Station, Braintree, or Brockton – to - Hyannis: \$22 one-way / \$40 round trip
- South Station, Braintree, or Brockton – to - Wareham Village or Buzzards Bay: \$20 one-way / \$35 round trip
- Middleboro/Lakeville, Wareham Village or Buzzards Bay - to - Hyannis: \$5 one-way / \$8 round trip

1.3.2 Framework for Berkshire Flyer Service

The goal of the Berkshire Flyer legislative direction is seasonal passenger rail service between Pittsfield and New York City. Through discussions with the Working Group, a framework for the service was established that has been used to form alternatives and options for the service. It was understood by the Working Group that the service plan would need to start out modestly, as a proof of concept. Utilizing this framework ensures that the service details remain in line with the goals of the Working Group as any next steps are considered.

The contemplated service focused on the following:

- Providing a one-seat ride from New York to Pittsfield. With a one-seat ride passengers would not be required to transfer trains.
- Providing service between Memorial Day weekend and Labor Day weekend, with potential to extend service to weekends in the fall through Columbus Day.
- Service schedules that would bring weekend travelers from New York to Berkshire County. While travel from the Berkshires to New York City was not a part of the Working Group's charge, it is an objective to be kept in mind as the schedule is developed.
- Optimal service schedules would allow passengers to arrive in Pittsfield by 4 PM on Fridays and depart Pittsfield in the late afternoon on Sundays.

Service schedules for a Berkshire Flyer service would require a balancing of the goals with the schedules and capacities of existing Amtrak operations along the corridor, in order to minimize any initial capital investment. This could include alternative schedule times, length of the operating season, or connections. Chapter 2 will provide detail on the alternatives for service considered.

1.4 Existing Services

Current non-auto travel options between New York City, NY and Pittsfield, MA include Amtrak trains or private carrier buses. The following bus operators can be used to travel a portion or the entire trip between the two cities. Each bus operator has different routes, connections and intermediary cities.

Greyhound – Greyhound provides service between NYC and Pittsfield either on routes that travel through Hartford, CT and Springfield, MA with a transfer in Springfield, MA or on a route that requires a transfer at the Albany Bus Terminal

Peter Pan /Bonanza – Peter Pan/Bonanza Bus Lines provide service between NYC and Pittsfield on routes that travel through Hartford, CT and Springfield, MA with a transfer in Springfield,

MA or through a direct service that travels through Waterbury, CT and Great Barrington, MA, among other stops.

Bus/transit service operators, in addition to those identified above, provide service for portions of the trip and would require transfers at major bus/transit hubs. These options include Trailways/Adirondack Bus, Fox Bus, Megabus and MetroNorth.

The travel times vary considerably based on operator, route, and specific departure time. In general the most direct services are scheduled to take anywhere from 4 hours to 6 hours, with delays likely due to roadway conditions, especially on Friday afternoons in the New York metropolitan area.

The quickest of the bus trips do not experience a significant time penalty for the added stops and transfers. Based on historical travel data from Google, the trip time on Friday afternoons from New York City to Pittsfield takes 4 to 5 hours.

Using a combination of bus and rail modes for trips between New York and Pittsfield (called interlining) is complicated by the fact that at the major transfer location on the most well-served and frequent route (New York to Albany), the terminals for bus service and rail service are not located proximate to each other. At the New York City end of the service most bus departures originate from the Port Authority Bus Terminal on 41st Street, while train departures would originate from New York Penn Station on 31st Street. In the Albany, NY area, the bus and rail terminals are not located close to each other and would require a 25-minute walk (or other service connection), a condition which would dissuade most travelers from choosing that route.

Albany/Rensselaer Station & Transit Center



Source By UpstateNYer; cropped by Beyond My Ken (talk) 21:01, 22 April 2012 (UTC) – Own work, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=19181484>

The Capital District Transportation Authority (CDTA) is the owner and operator of the Rensselaer Rail Station in Rensselaer, New York which opened in September 2002. The rail station facilities include a parking garage, rental cars, CDTA bus service, taxi service, and Amtrak train service.

Figure 5: Albany/Rensselaer Station & Transit Center

Albany Bus Terminal

Located on Hamilton Street in downtown Albany, the Albany Bus Terminal is home to Greyhound, Peter Pan, Adirondack Trailways, New York Trailways, Vermont Trailways, Fox Bus Inc., and Tour buses.

The Albany Bus Terminal and the Albany/Rensselaer Station are a 10-minute bus ride apart on the Capital District Transit Authority (CDTA). The service operates six days per week with no direct service on Sundays.



Source: Google (July 2017)

Figure 6: South view of Albany Bus Terminal

1.4.1 Existing Amtrak Services

Currently, connections between Pittsfield, MA and New York Penn Station can be made daily through Albany/Rensselaer Station. Options are available for Friday departures from New York Penn Station on the Amtrak Empire Service at 11:20 AM, with a transfer onto the Amtrak Lake Shore Limited service in Albany/Rensselaer. The transfer would require a 1 hour 15 minute layover in Albany/Rensselaer. Passengers would arrive at Pittsfield at 4:09 PM. This 4-hour and fifty-minute trip is provided once per day. The same trip is possible in the reverse direction on a Sunday, where the train leaves Pittsfield at 4:39 PM and a passenger ultimately arrives in New York Penn Station at 8:50 PM.

When booking travel on the Amtrak ticketing system, a southbound (Pittsfield-New York Penn Station) ticket can be easily identified and purchased; however, due to limitations to the system, a northbound ticket can only be purchased by selecting the individual travel segments (New York Penn Station to Albany/Rensselaer and Albany/Rensselaer Station to Pittsfield Station). Although these trips require connections, the 4:15 to 4:45 hour travel time is comparable to bus and auto trip times.



Figure 7: Logos of Existing Amtrak Services

2 ALTERNATIVES

The study examined three service alternatives operating over two different routes to provide the connection between New York City and Pittsfield. The combination of routes and services can be seen in Table 2, Berkshire Flyer Alternatives Matrix. A description of each route and service is included in the following sections.

Table 2: Berkshire Flyer Alternatives Matrix

Service Alternative	Route Used	Construction of New Track Required	Addition of New Trains on Empire Corridor Required
1A	Albany/Rensselaer Route	No	No Extension of Existing Trains
1B	Albany/Rensselaer Route	No	Yes
2	Schodack Subdivision Route	Yes New Connector Track	Yes

2.1 Potential Routes

Two railroad routes were reviewed for the contemplated Berkshire Flyer passenger service from Pittsfield, Massachusetts to New York Penn Station. The Albany/Rensselaer Route is from the Pittsfield Amtrak Station to New York Penn Station via the Albany/Rensselaer, NY Amtrak Station. The Schodack Subdivision Route is from the Pittsfield Amtrak Station to New York Penn Station via the CSX Schodack Subdivision. The Schodack Subdivision route would also include travel along an unbuilt contemplated connection track between CSX's Berkshire & Schodack Subdivisions near Castleton, NY. The two routes reviewed for the service have common beginning and end points and are described in detail below. Passenger service already operates effectively on Amtrak's Hudson Subdivision and with trackage rights on Metro-North, so the existing passenger connection from Mile Post 125.6 (Hudson Subdivision) near Stuyvesant to New York Penn Station is not described technically.

2.1.1 Albany/Rensselaer Route

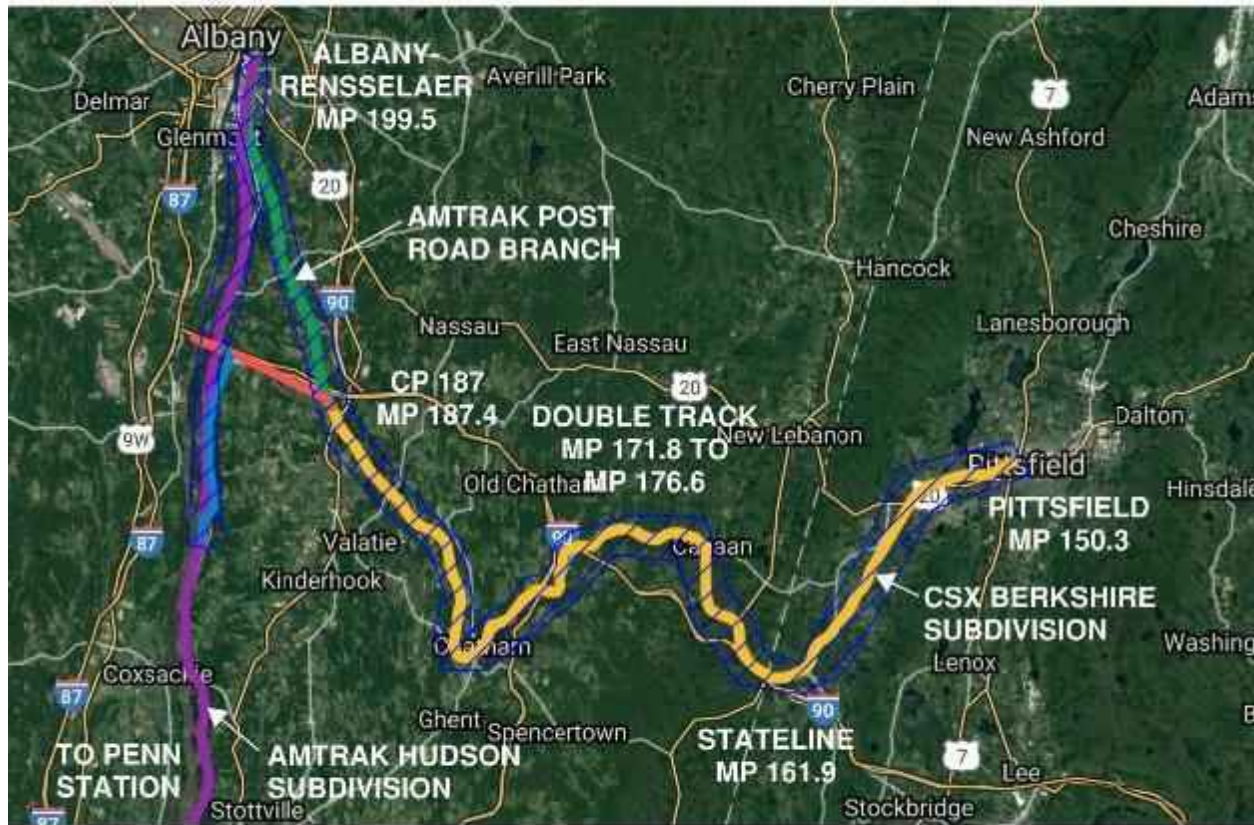


Figure 8: Berkshire Flyer Albany /Rensselaer Route

2.1.1.1 Route Description

Where is it?

The Albany/Rensselaer Route begins at Pittsfield Station, travels to the Albany/Rensselaer Station, and then goes southward to New York Penn Station. (See blue outlined/hatched route in Figure 8 – Berkshire Flyer Albany/Rensselaer Route.) The total length of the route is 191 miles, with 11 miles in Massachusetts, and 180 miles in New York. Ownership of the route is mixed, with CSX having ownership of a portion between Pittsfield and Albany (Berkshire Subdivision) and between Albany and New York Penn (Hudson Subdivision), the other route segments are owned by Amtrak and Metro North.¹ Despite the mix of route ownership, Amtrak currently operates services on each segment of the route; Amtrak owns the Post Road Branch, leases the Hudson Subdivision from CSX, and has trackage rights on the Berkshire Subdivision and on MetroNorth. (See Appendix D for schematic track plan with ownership, operations, and speeds.)

¹ The Albany/Rensselaer Route would use the CSX Berkshire Subdivision from Milepost (MP) 150.5 (Pittsfield) to MP 187.4; the Amtrak's Post Road Branch from MP 187.4 to MP 199.5 (Albany/Rensselaer), the Amtrak Hudson Subdivision from MP 142.1 to MP 75.8, and MetroNorth from MP 75.8 to MP 0.0 (New York Penn Station).

What are its operating characteristics?

The CSX-owned Berkshire Subdivision generally has a speed of 50/50 (passenger/freight) Miles Per Hour (MPH), with a passenger speed of 60 MPH from Milepost (MP) 150 to MP 157. It has a low passenger speed of 30 to 35 MPH from MP 176 to MP 178. The Amtrak Post Road Branch generally has a speed of 79/50 MPH. The Amtrak Hudson Subdivision has a speed of 15/10 MPH through the Albany/Rensselaer Station, with the speed increasing to primarily 110/50 MPH with some variation heading south to New York Penn Station (although usually at a high speed on the Hudson Subdivision and on MetroNorth). The third leg of the wye north of the Albany/Rensselaer Station where Empire Service trains reverse direction is on the Hudson's Troy Lead and has a speed of 10 MPH.

The Berkshire section of the route is single-track except for a double track segment from MP 171.8 to MP 176.6 (4.8 miles). There are existing industry sidings at MP 177.2 and MP 184.7 and three additional stub end sidings at MP 162.0, MP 162.1, and MP 177.4. Based on historic documents, the route was double track in the past. Existing roadbeds in former double track areas are often efficient locations for new passenger sidings if the cross section is wide enough to accommodate the current required track centers, so this could be evaluated if required by Amtrak or CSX in the future. The Amtrak Post Road Branch is single track, which significantly limits the number and frequency of trains that can use the branch, while Amtrak's Hudson Subdivision and MetroNorth are both double track, which allow for frequent train operations.

The number and locations of signal control points along a rail route impacts the capacity of the route and the ability to operate both passenger and freight service without significant impact to either. Along the CSX-owned segment of the Albany/Rensselaer Route from Pittsfield and Albany there are three Control Points (Interlockings) that are located in a manner that it should minimize the impact that the addition of one passenger train would have on freight operations.

- CP 150 (MP 150.3): A connection to the Housatonic Railroad.
- CP 171 (MP 171.8) & CP 176 (MP 176.6): The ends of the double track section.
- CP 187: Connection between the Berkshire Subdivision and the Post Road Branch.
- The two industry sidings and the three other stub sidings appear to be hand thrown electric lock switches and not signalized control points. This would need to be verified with CSX.

2.1.1.2 Tunnel

The State Line Tunnel is located at MP 164.8 and is approximately 600 feet in length. Vertical and horizontal clearance information does not appear to be publicly available and so would need to be verified with CSX.

2.1.1.3 Station Descriptions

The Pittsfield Amtrak Station includes a station building and a single-sided, 146-foot low-level platform. Amtrak maintains accessibility at the station by making a wheelchair lift available. The functional characteristics of the station have been reviewed and it is assumed that additional improvements would not be required for the Berkshire Flyer service. There is no other railroad passenger facility between the Albany/Rensselaer Station and the Pittsfield Station.

The Albany/Rensselaer Amtrak Station has two high island platforms (840 feet and 1,060 feet in length) and is served by a total of four tracks from the Post Road Branch and the Hudson Subdivision. The station and both of the track approaches (north and south) were improved to allow full flexibility in the station area, allowing trains to move from the Post Road Branch or the Hudson Subdivision to any station track and providing full access between the Station the Rensselaer Shops, where trains are stored and maintained each night. Amtrak's Rensselaer Shops/Yard are directly north of the Station.

New York Penn Station currently serves as the origin and destination for trains traveling through the Empire Connection Tunnel and utilizing the Hudson Subdivision. Even with 21 tracks, the station suffers from chronic capacity issues, limiting the number of trains and resulting in delays and negative passenger experiences. Additionally, the Empire Connection track only has access to the southern portion of New York Penn Station, which it shares with NJTRANSIT. Amtrak currently operates thirteen daily weekday and eleven daily weekend roundtrips along the Empire Corridor between Albany/Rensselaer and New York City. Potential future expansion of this service and planned NJTRANSIT service growth may increase the train volume on this route and at the southern platforms, respectively. There are several projects planned to address these and other operational/reliability issues at the station in the coming decade, but not all funding has been secured. Because the approaches are in long tunnels, only electric or dual-mode locomotives are allowed to access the station.

2.1.1.4 Existing Rail Traffic

In planning any new rail service it is important to understand the existing freight and passenger use of each rail segment on the route, as it will impact the capacity of the line to accommodate the new service and would influence schedule flexibility. The Albany/Rensselaer Route has significant passenger traffic on the Hudson Subdivision that could impact the ability to accommodate service on a new train in a preferred time period. Passenger rail service on the remainder of the route is limited. Freight rail service volumes on the CSX Berkshire Subdivision are notable but not likely to impact the ability for the contemplated service to operate; however scheduling and passenger service on-time-performance may be influenced depending on the operational details of the freight and passenger services. The following is a summary of existing rail traffic on each segment:

Daily Amtrak Passenger Service

- CSX Berkshire Subdivision: 2 Trains
- Amtrak (leased from CSX) Hudson Subdivision: 20 Trains
- Amtrak Post Road Branch: 2 Trains

Freight Tonnage²

- CSX Berkshire Subdivision: 10 – 40 Million Gross Tons (MGT)
- Amtrak (leased from CSX) Hudson Subdivision: 0 – 10 MGT
- Amtrak Post Road Branch: 0 – 10 MGT

² The amount of rail traffic and related capacity of a rail line is often described by the tonnage of freight carried.

2.1.2 Schodack Subdivision Route

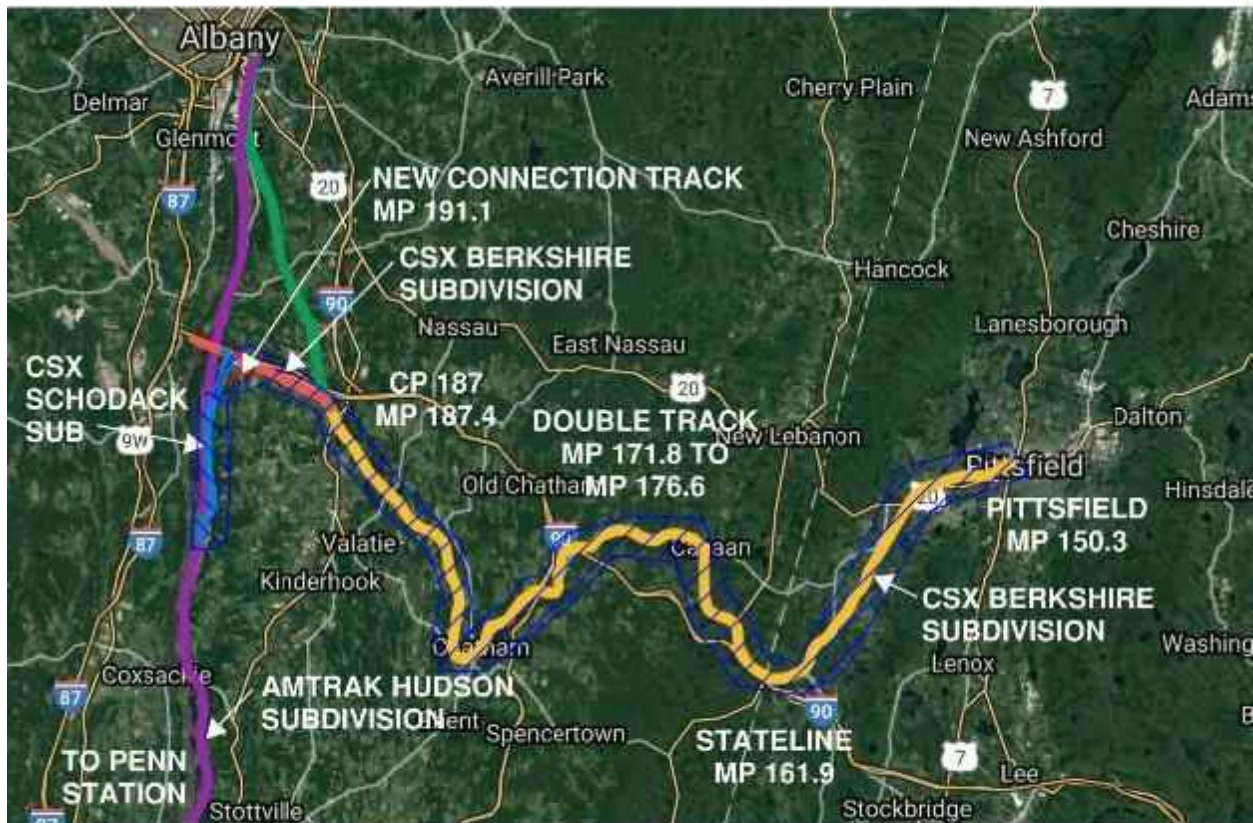


Figure 9: Berkshire Flyer Schodack Subdivision Route

2.1.2.1 Route Description

Where is it?

The Schodack Subdivision Route begins at the Pittsfield Station, bypasses the Amtrak Post Road Branch and Albany/Rensselaer Station, would turn onto the CSX Schodack Subdivision near Castleton, NY (new track), and then would go southward to New York Penn Station on the Hudson Subdivision.

The route would require the construction of a new connection track to allow trains to travel directly between the Schodack Subdivision and eastern segment of the Berkshire Subdivision. Currently the track configuration only permits direct travel between the Schodack Subdivision and the western segment of the Berkshire Subdivision. Without the construction of the new connecting track, the train would need to change direction during mid-route, which is both time-consuming and difficult for a passenger train in revenue operations.

The total Schodack Subdivision Route length is 173 miles, with 11 miles in Massachusetts and 162 miles in New York. The Berkshire Subdivision ends where the Schodack Subdivision ends and the Castleton Subdivision begins at CP SM (Berkshire MP 191.9 = Schodack MP 8.4 = Castleton MP 8.4).

What are its operating characteristics?

The CSX Schodack Subdivision has a speed of 40 MPH for passenger trains and 40 MPH for freight trains from where it would meet the new connection track to where it ends at the Hudson Subdivision at MP 125.6. South of this point, the Hudson Subdivision has a speed of 110 MPH for passenger trains and 50 MPH for freight trains.

2.1.2.2 New Connection Track

The new connection track between the CSX Berkshire Subdivision and CSX Schodack Subdivision would be approximately 3,000 feet in length and would need to meet CSX's standards for a curve at 40 MPH, the same speed as the Schodack Subdivision. The new connection track would require two new signalized control points, one on the Berkshire Subdivision and one on the Schodack Subdivision.

The Berkshire Subdivision is at an elevation of about 173 feet and the Schodack Subdivision is at an elevation of about 152 feet. The topography of the area between the tracks is much higher than the tracks, with about one third of the length of the new track crossing a ridge line (highest point along the alignment appears to be at about elevation 219 feet). The installation of the new connection track through this area would appear to require average excavations of up to about 50 feet through the ridge and about 20 feet along the other two thirds of the new alignment. In addition, it is understood based on United States Geological Survey data that a portion of the excavation would require rock ledge removal in addition to soil removal. Elevations for this conceptual evaluation were obtained using online 3D surface models and are approximate only.

There is currently a bridge carrying Knickerbocker Road over the railroad just south of the new connection track, so the location of the connection track could not be shifted southward to avoid the ridge. In addition to avoiding impacts to the Knickerbocker Road bridge, the contemplated Schodack Subdivision Route alignment avoids both an existing National Wetlands Inventory (NWI) Freshwater Forested/Shrub Wetland³ to the southeast and a creek and a NWI Freshwater Emergent Wetland to the northeast. If the track was shifted further to the southeast away from the ridge line, it would require a modification of the Knickerbocker Road bridge, takings of additional residential properties in the area, and infrastructure to address the crossing of regulated resource areas near the Berkshire Subdivision, which would all increase project costs. It would also still require an average cut of about 20 feet for the entire length of the track; because this alignment would be much longer, the total amount of cut would be anticipated to be greater than the shorter route through the ridge line.

Additionally, the existing Schodack Subdivision is located within a cut approximately 30 deep. This cut appears to generate drainage issues because standing water can be seen on online photos from the overhead Knickerbocker Road Bridge. It is assumed that the cut for the new connection track would require extensive drainage mitigation to avoid compounding existing drainage issues. This would require further investigation during design development.

³ Located approximately at elevation 184, with a length of 275 feet



Source: Google (2018)

Figure 10: Berkshire Flyer Schodack Subdivision Route – New Connection Track Aerial View

In addition to the construction complexities introduced by the significant cut required to construct the contemplated connection track, the aforementioned wetland and the missing section of right-of-way are likely to increase the cost and duration of the Schodack Subdivision Route implementation. These costs cannot be estimated at this level of project development, but infrastructure assumptions and other related conceptual costs are included in Chapter 3.



Figure 11: Berkshire Flyer Schodack Subdivision Route Environmental Resources

2.1.2.3 Existing Rail Traffic

In considering how the Berkshire Flyer service would interact with existing rail service and evaluating available capacity along the route, it appears that challenges would need to be addressed on the Schodack Subdivision Route. Like the Albany/Rensselaer Route, the Schodack Subdivision Route uses a portion of the Hudson Subdivision that has significant passenger rail traffic that must be considered in planning the service schedule. In addition, CSX uses both the Berkshire and Schodack Subdivisions for freight. More detail would be needed from CSX to understand the existing volumes on the segments. However, because the Schodack is a single-track segment, either additional capacity would be needed or the service would run the risk of significant delay if CSX was occupying the track during the Berkshire Flyer service schedule. The following is a summary of existing rail traffic on each segment:

Daily Amtrak Passenger Service

- CSX Berkshire Subdivision: 2 Trains
- CSX Schodack Subdivision: 0 Trains
- Amtrak (leased from CSX) Hudson Subdivision: 20 Trains

Freight Tonnage⁴

- CSX Berkshire Subdivision: 10 – 40 Million Gross Tons
- CSX Schodack Subdivision: 0 – 10 Million Gross Tons
- Amtrak (leased from CSX) Hudson Subdivision: 0 – 10 Million Gross Tons

2.2 **Potential Services**

The potential passenger rail service being evaluated in this study would carry passengers between New York City and Pittsfield, MA. The contemplated service would be seasonally focused on serving weekend travelers during the summer and possibly the fall months.

⁴ The amount of rail traffic and related capacity of a rail line is often described by the tonnage of traffic on the line.

Operations were examined for an initial service implementation to run from Memorial Day weekend to Columbus Day (up to 20 weeks of service), although a shorter season may be considered if travel demand estimates anticipate a shorter season. Given visitor patterns, members of the Working Group agreed that a slightly shorter season, perhaps operating from the last half of June, might be more viable as an initial implementation step. The planned focus of service is for northbound service on Friday afternoons and southbound service on Sunday afternoons.

The conceptual service plans would need to take into account existing rail services along the line and line ownership. As previously noted, segments of the routes are owned by Amtrak and CSX and are used by both freight and passenger services. Due to the mixed ownership, the only feasible operator would be Amtrak. Amtrak has statutory access⁵ to freight railroads' rights-of-ways that exists for no other entity, and therefore can utilize the CSX rail line. In addition, the Berkshire Flyer service plans would need to take into account both the CSX and Amtrak operations. New York State Department of Transportation (NYSDOT) would need to concur with, and be a party to, any service agreement affecting Amtrak service in the state of New York. In preliminary conversations, NYSDOT representatives stated that they would be willing to entertain a proposal for Berkshire Flyer service as long as it does not require changes to existing passenger rail services or additional financial support.

Three conceptual service plans along with service assumptions have been developed and are provided in the following sections.

2.2.1 Option 1A- Empire Corridor Extension

The contemplated service would function as an extension of existing Amtrak Empire Service between New York Penn Station and Albany/Rensselaer using equipment that would be headed to storage at the end of the day to provide the trip to Pittsfield for the Berkshire Flyer service. This service would use the existing tracks between Pittsfield and New York Penn Station via Albany/ Rensselaer.

2.2.1.1 Operational Route Description

On Friday, northbound passengers would board train #255, departing from New York Penn Station at approximately 2:20 PM; arriving at Albany/Rensselaer at 4:50 PM. Passengers would then continue on to Pittsfield aboard the same train, arriving at about 6:10 PM.

On Sunday, southbound passengers would board a train in Pittsfield at approximately 2:45 PM for the trip to Albany/Rensselaer and then would continue on to New York Penn Station as train #244 departing Albany/Rensselaer at 4:10 PM and arriving at New York Penn Station at 6:45 PM.

It is assumed that fares for this and the other options would be consistent with existing Amtrak fare policies and fare structure. However, if the service is to follow the Cape Flyer's pattern of



⁵ Railroad Passenger Service Act of 1970.

financial self-sufficiency, other charges may need to be considered. Additional information regarding fares is included in Chapter 5.

2.2.1.2 Station Facility Assumptions

The contemplated service would operate as it currently does, serving all stations between New York Penn Station and Albany/Rensselaer Station. In addition to the existing Empire Corridor stations, the service would stop at the existing Pittsfield Station. Although a second station along the extension could be contemplated in the future in or near Chatham, NY, the capital requirements for a station at that location are too significant to be considered at this time.

2.2.1.3 Capital Requirement Assumptions

Infrastructure

The service as contemplated would travel entirely along the two rail routes that are currently used by Amtrak to provide passenger service (Empire Corridor from New York Penn Station to Albany/Rensselaer and Lake Shore Limited Corridor from Albany/Rensselaer to Pittsfield). It is assumed that the service would not require any additional capital infrastructure along the two routes, at the existing terminal stations or at Pittsfield Station.

Train Layover

It is assumed that the contemplated service would be based out of Albany/Rensselaer and would be operated by providing either deadhead or revenue trips between Pittsfield and Albany/Rensselaer to position trains appropriately. It is assumed that the service would not require any additional capital infrastructure in Albany/Rensselaer or Pittsfield for train layover or crew accommodations.

2.2.1.4 Rolling Stock Assumptions

Because the service is an extension of existing Amtrak services during non-peak periods, it is assumed that the service could be provided by Amtrak using the existing fleet. It is understood that modifications to train consists providing the service would require an additional locomotive to operate along the segment between Albany/Rensselaer and Pittsfield to compensate for the lack of train-turning capabilities in the Pittsfield area (see Appendix B for a wye-track concept that could be considered in the future to improve operations). If the service sells out on a regular basis an additional coach could be added to the train set to accommodate the demand.

2.2.1.5 Contemplated Suggested Schedules

The following schedule has been developed as a suggested schedule for the service. It is noted that this is not optimal, in that the Friday arrival and Sunday departure are later and earlier, respectively, than identified as the preferred timing. However, it is the closest option that fits in with existing Amtrak operations on the Empire Corridor.

Berkshire Flyer: Friday Outbound (Northbound)			Berkshire Flyer: Sunday Return (Southbound)		
Stations	MP	Dep/Arr	Stations	MP	Dep/Arr
New York Penn	0	Dep: 2:20 PM	Pittsfield	0	Dep: 2:45 PM
Yonkers	15	Dep: 2:44 PM	Albany-Rensselaer	48	Arr: 3:55 PM
Croton-Harmon	33	Dep: 3:03 PM	Albany-Rensselaer	48	Dep: 4:10 PM
Poughkeepsie	74	Dep: 3:45 PM	Hudson	75	Dep: 4:32 PM
Rhinecliff	89	Dep: 4:00 PM	Rhinecliff	101	Dep: 4:52 PM
Hudson	115	Dep: 4:20 PM	Poughkeepsie	116	Dep: 5:10 PM
Albany-Rensselaer	142	Arr: 4:50 PM	Croton-Harmon	157	Dep: 5:51 PM
Albany-Rensselaer	142	Dep: 5:05 PM	Yonkers	175	
Pittsfield	190	Arr: 6:10 PM	New York Penn	190	Arr: 6:45 PM

Table 3: Contemplated Suggested Schedules - Option 1A

2.2.1.6 Amtrak Information

MassDOT requested Amtrak to review the contemplated service described above and provide input regarding operational challenges or additional capital equipment or improvements required. Upon completion of its review, Amtrak did not recommend any changes or additions for the service.

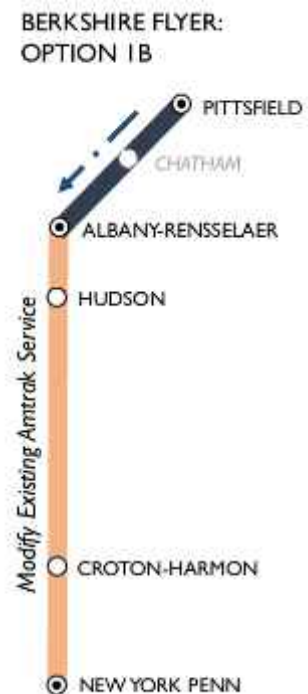
2.2.2 Option 1B – Berkshire Flyer Express

The contemplated service would function similarly to Option 1A except that the service would operate as a partial express train stopping at only select stations along the Empire Corridor before reaching Albany/Rensselaer and turning for Pittsfield.

2.2.2.1 Operational Route Description

The service would operate as a **new** train service along the corridor with a Friday early afternoon departure from New York Penn Station and a Sunday departure from Pittsfield in the early evening.

The contemplated Friday departure from New York Penn Station would be at approximately 12:30 PM (or the closest available slot), operating between two existing Amtrak services (#233 and #283) and arriving at Pittsfield at approximately 4:20 PM. This express service would not result in reduced travel times, since it would be delayed at Albany/Rensselaer to avoid conflicts with the Amtrak Lake Shore Limited service at Pittsfield. Alternative New York departure times would need to be identified to achieve the projected 10 to 12 minute travel time savings by running express.



The contemplated Sunday departure of Pittsfield would be at about 5:40 PM, arriving at New York Penn at approximately 9:30 PM.

This service would not decrease service to existing New York Empire Corridor stations, but would utilize capacity along the line without providing service to all Empire Corridor stations. It was noted by NYSDOT that they would not be supportive of an alternative that did not provide service to all the Empire Corridor Stations.

It is assumed that fares for this and the other options would be consistent with existing Amtrak fare policies and fare structure. However, if the service is to follow the Cape Flyer's pattern of financial self-sufficiency, other charges may need to be considered. Additional information regarding fares is included in Chapter 5.

2.2.2.2 Station Facility Assumptions

The contemplated service would skip many of the existing stations between New York Penn Station and Albany/Rensselaer Station, with stops at only Croton-Harmon and Hudson before arriving at Albany/Rensselaer and continuing to the existing Pittsfield Station.

2.2.2.3 Capital Requirement Assumptions

Infrastructure

As with Option 1A, the service as contemplated would travel entirely along the two rail routes that are currently used by Amtrak to provide passenger service (Empire Corridor from New York Penn Station to Albany/Rensselaer and Lake Shore Limited Corridor from Albany/Rensselaer to Pittsfield). It is assumed that the service would not require any additional capital infrastructure along the two routes, at the existing terminal stations or at Pittsfield Station.

Train Layover

It is assumed that the contemplated service would be based out of Albany/Rensselaer and would be operated by utilizing spare Amtrak equipment that is already stationed at Albany/Rensselaer. It is assumed that the service would not require any additional capital infrastructure in Albany/Rensselaer or Pittsfield for train layover or crew accommodations. As part of the Amtrak review of service, they did not identify any issues related to the assumptions being made.

2.2.2.4 Rolling Stock Assumptions

The service could be provided by Amtrak using the existing fleet, by utilizing existing equipment that is not in use by Amtrak during the contemplated service times. It is understood that an additional locomotive would need to be added to the trainset to operate along the segment between Albany/Rensselaer and Pittsfield to compensate for the lack of train-turning capabilities in the Pittsfield area.

2.2.2.5 Suggested Contemplated Schedules

The estimated travel times are similar to those on the existing Empire Service, with a slight improvement due to the elimination of station stops (estimated to be approximately 8 minutes). Specific schedules have not been developed, but assumed departure times were identified above.

2.2.3 Option 2 – Schodack Subdivision Service

The contemplated service would function similarly to Option 1 except that the service would operate along a new route north of Hudson, NY. The route would utilize the CSX Schodack Subdivision and a new Connection Track to be constructed between milepost 7.8 on the Schodack Subdivision to milepost 191.1 on the CSX Berkshire Subdivision.

This route is 18 miles shorter than the route through Albany/ Rensselaer as described above; however, because the route uses the Schodack Subdivision with a maximum train speed of 40 mph instead of the Hudson Subdivision with a maximum train speed of 110 mph, the train travel time savings is estimated to only be four minutes. However, utilizing the Schodack Subdivision would eliminate approximately 15 minutes of time required at Albany/Rensselaer for passenger boarding/alighting, adding a locomotive, and “turning” the train, resulting in a total travel time savings of approximately 20 minutes over Option 1.



As identified for Option 1B, the service would operate as new trains along the corridor with a Friday early afternoon departure from New York Penn Station and a Sunday departure from Pittsfield in the early evening.

The contemplated target Friday departure from New York Penn Station would be at approximately 12:30 PM (or the closest available slot), operating between two existing Amtrak services (#233 and #283) and arriving at Pittsfield at approximately 4:30 PM.

The contemplated target Sunday departure from Pittsfield at about 5 PM arriving at New York Penn at approximately 9:30 PM

Similar to Option 1B, this service would not decrease service to existing New York Empire Corridor Stations, but would utilize capacity along the line without providing service to all Empire Corridor stations. It was noted by NYSDOT that they would not be supportive of an alternative that did not provide service to all the Empire Corridor Stations.

It is assumed that fares for this and the other options would be consistent with existing Amtrak fare policies and fare structure. However, if the service is to follow the Cape Flyer’s pattern of financial self-sufficiency, other charges may need to be considered. Additional information regarding fares is included in Chapter 5.

2.2.3.1 Station Facility Assumptions

The contemplated service would skip many of the existing stations between New York Penn Station and Hudson, with stops at only Croton-Harmon and Hudson before traveling the new segment to Pittsfield Station. Albany/Rensselaer Station would not be served. Although a second station along the extension could be contemplated in the future in or near Chatham, NY, the capital requirements for a station at that location are too significant to be considered at this time.

2.2.3.2 Capital Requirement Assumptions

Infrastructure

The service as contemplated would travel along the portions of two existing Amtrak rail routes that are currently used by Amtrak to provide passenger service (Empire Corridor from New York Penn Station to milepost 125.6 on the Hudson Subdivision and Lake Shore Limited Corridor from milepost 187.4 on the CSX Berkshire Subdivision to Pittsfield). It is assumed that the service would not require any additional capital infrastructure along the segments identified above.

In addition to utilizing the existing routes, the contemplated service would utilize the 11.5 miles of existing CSX track (Schodack Subdivision and the Berkshire Subdivision) and 0.6 miles of newly constructed track. Details regarding the newly constructed track are included in the description of the Schodack Subdivision Route and the estimated costs are included in Chapter 3.

Train Layover

It is assumed that the contemplated service would be based out of Albany/Rensselaer and would be operated by utilizing spare Amtrak equipment that is already stationed at Albany/Rensselaer. It is assumed that the service would not require any additional capital infrastructure in Albany/Rensselaer or Pittsfield for train layover or crew accommodations.

2.2.3.3 Rolling Stock Assumptions

It is assumed that the service could be provided by Amtrak using their existing fleet, by providing existing equipment that is not in use during the contemplated service times. The trains used would need a second locomotive so that there is one on each end. This configuration is needed for the train to change directions in Pittsfield, since there are no train-turning capabilities in the Pittsfield area.

2.2.3.4 Contemplated Schedules

The estimated train travel times between Pittsfield and Hudson are approximately 5 minutes shorter, which combined with the 15-minute dwell time in Albany/Rensselaer Station results in a 20-minute timesaving. Specific schedules have not been developed, but assumed departure times have been provided above. Amtrak would identify the non-peak direction trips to Albany or New York City necessary for the appropriate positioning of equipment.

3 CAPITAL COST ESTIMATES

3.1 Required Capital

The three service options examined by this study operate over two potential routes, one through Albany/Rensselaer and one over the Schodack Subdivision. The potential capital cost requirements for these routes vary significantly because of the new connector track required for Schodack Subdivision Route, but they also contain many similar elements. This chapter summarizes the required capital improvements and their estimated cost.

3.1.1 Track Improvements

The Albany/Rensselaer Route is made up of existing track that is currently used for Amtrak passenger service. Accordingly, no track improvement cost is anticipated for the Albany/Rensselaer Route. However, the Schodack Subdivision Route includes both the introduction of passenger service to track that is currently only used for freight traffic, and the construction of a new connecting track. The following subsections describe improvements for the Schodack Subdivision Route.

3.1.1.1 Track Construction

These costs have been only been conceptually evaluated because the collection of geotechnical data is beyond the scope of this study. The following elements would require consideration.

Basic Track Construction

The Schodack Subdivision Route requires the installation of approximately 3,000 feet of new track. Typical track construction includes clearing and grubbing, installation of subballast, and construction of ballasted track. Total potential cost for these items is estimated at \$1.2 million. The installation of the track is only one component necessary to allow trains to operate along the corridor. Other efforts, including design, property acquisition, right-of-way site work, train signals and switches are required. Descriptions of those items and the related costs are provided below.

Connections to Existing CSX Track

Two new track switches and two new train signals (called control points) would be required where the new connecting track meets the existing CSX tracks. The new signals would have to be connected into the existing CSX signal systems on both ends. Total potential cost for these items is estimated at \$4.3 million.

Earthwork/Drainage

As described in Chapter 2, the new connection track alignment would require a significant cut through an existing ridge. Using available 3D surface modeling information, the average excavation depths appear to be up to 50 feet through the ridge and around 20 feet along about two-thirds of the alignment. Approximately 25% of this excavation is estimated to be rock, but the collection and evaluation of geotechnical data would be required to accurately determine the value. This extensive cut would not only increase construction costs, it would also generate additional drainage issues requiring mitigation, further increasing cost. Total potential cost for these items is estimated at \$4.7 to \$16.5 million.

Engineering/Permitting

This study is based only on readily available information and did not include the collection of any survey, geotechnical, environmental, regulatory, or right-of-way information. A complete engineering evaluation and design would be required to support any new track construction. This effort is typically estimated to be about 6% of total construction cost. Total potential cost for these items is estimated at \$0.7 to \$1.4 million.

Land Acquisition

The land required for the new connection track and its construction are in the state of New York and are not entirely owned by CSX. Some of the land is privately held and some appears to be owned by a public utility. Additional real estate evaluation would be necessary before an estimate for land acquisition costs could be made.

Existing CSX Track Upgrades

A 10.2-mile section of Schodack Subdivision Route is on existing CSX track. These sections of existing CSX track do not currently support passenger rail service. It is anticipated that improvements would be required to increase the track classification from Class 3 to Class 4, likely including tie replacements, resurfacing, and tie plates and other track materials. Total potential cost for these improvements is estimated to range from \$3 to 6 million depending upon the conditions of the existing track structure.

Positive Train Control

Amtrak would require that the entirety of Schodack Subdivision Route be upgraded to include Positive Train Control (PTC) prior to introducing any passenger service. Determination of the scope of PTC implementation that would be required to support the contemplated Schodack Subdivision Route service option is beyond the scope of this study; however, PTC implementation costs are typically significant.

3.1.2 Station Improvements

In general, it appears that any of the contemplated service alternatives could begin without performing any station improvements. Future station projects could be considered to increase ridership and improve passenger experiences.

3.1.2.1 Pittsfield Station

Pittsfield Station currently supports Amtrak passenger service, so no capital improvements are anticipated to be required to support any of the contemplated service alternatives. Future station improvements related to universal accessibility and parking could be considered but are not expected to be required for the contemplated service alternatives.

3.1.2.2 Albany/Rensselaer Station

Platform extensions and other station upgrades were recently performed at Albany/Rensselaer Station. It is not anticipated that any additional capital improvements would be needed to support use of the contemplated Albany/Rensselaer Route. The Schodack Subdivision Route does not pass through the Albany/Rensselaer Station.

3.1.2.3 New York Penn Station

As previously discussed, New York Penn Station suffers from chronic capacity issues. Several projects are planned to address these issues. Potential capital improvements to New York Penn Station are not contemplated to support the Berkshire Flyer service.

3.1.2.4 Chatham Station

The addition of a station at Chatham, NY was discussed by the Working Group. Support from Chatham has been reported, but would need to be confirmed and advanced by leadership in that community before this concept could be developed. A new passenger rail station would require a full-length high-level station platform to be built, which is a requirement for any new or newly served Amtrak train station. The station and associated platform would introduce a significant cost to the project that would need to be thoroughly evaluated and studied.

3.1.3 Rolling Stock

Service Options 1B and 2 both require the addition of a new train to each of the existing Amtrak schedules for Friday and Sunday evenings. Amtrak did not evaluate the cost of either of these service alternatives and therefore did not provide input on whether the existing Amtrak fleet includes capacity during the Berkshire Flyer service periods to be able to provide a trainset for the potential service. Although it is understood that existing service on Sunday afternoon is limited, and therefore trainsets are likely available, Friday afternoons are a high-demand period, and it is less likely that Amtrak could provide a trainset for either the 1B or 2 service options.

3.2 Capital Cost Estimate Summary

Many of the cost elements identified above have not been fully estimated since insufficient data is available to determine the required scope. The following costs have been estimated based on the conceptual plans and would be required for the start of any contemplated service.

Table 4: Capital Cost Estimate Summary

Cost Category	Option 1A	Option 1B	Option 2
Track Improvements	\$0	\$0	\$17.2 M - \$36.5 M+
Station Improvements	\$0	\$0	\$0
Rolling Stock	\$0	\$TBD	\$TBD
SUBTOTAL	\$0	\$0	\$17.2 M - \$36.5 M+

Note: Land Acquisition and PTC Implementation costs would need to be added to Option 2 after further evaluation to determine scope. Additionally, costs (and service options) do not reflect any new stations, although Berkshire Flyer Working Group did discuss opportunities for new stations in the future.

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4 OPERATING COST ESTIMATES

Operating costs for a passenger rail service include all the costs for the daily operation and regular maintenance of the service. The following summarizes the types and categories of costs that are considered.

- Train and Equipment Maintenance – Costs associated with spare parts, labor and materials, and periodic overhauls;
- Crew, Materials, and Fuel – Costs associated with operating the service such as crew salaries and fringe benefits, ticketing, crew-used support materials, and fuel costs;
- Access Rights to Rail Corridors – Defines a charge levied by the owner of the rail infrastructure to use the rail for public transit-related passenger purposes; and
- Service Overhead/Management Costs – Defines the costs for system administrative services, customer service, and general management activities.

Amtrak maintains an operating and maintenance cost model that is used to estimate the cost for service additions and changes on their network. They have used this model, which relies on a contemplated operating plan and actual costs from previous and existing services, to identify likely costs for the Berkshire Flyer options.

From these operating costs, the estimated revenue generated by the service is deducted to identify the total operating subsidy required. Most of the estimated revenue is generated from ticket sales, although a small amount can be generated from on-board food sales. The ticket sales value pivots off a combination of the projected ridership and the fares paid by each passenger. Additional information is provided in Chapters 5 and 6 related to the fare structure and estimated ridership. These operating costs are only for the train service provided by Amtrak and do not include marketing and other support of the type that CCRTA provided to the Cape Flyer.

4.1 Option 1A

Amtrak provided operating cost estimates for a 20-week seasonal service. This option includes a service that is an extension of existing Amtrak Empire Corridor trains and therefore the incremental operating costs is only for the trip between the Albany/Rensselaer Station and Pittsfield Station. Table 5 summarizes the estimated annual (20-week) operating costs:

Table 5: Option 1A Operating Cost Estimate Summary

Cost Category	Cost
Train & Equipment Maintenance	\$129,368
Crew, Materials, and Fuel	\$245,000
Access Rights to Rail Corridors	\$9,000
Service Overhead/Management Costs	\$38,193
Gross Operating Cost	\$421,561
Estimated Revenue	\$185,000
Net Operating Cost	\$237,561

4.2 Option 1B

Detailed cost estimates were not provided by Amtrak for Option 1B. However, since this option contemplates not stopping at all existing Empire Corridor stations, it therefore requires a new train to be operated along the corridor. It is not known if a slot could be found in the schedule that would not interfere with existing Amtrak, commuter, and freight services on the line or if a slot would be available at Penn Station. The requirement for a new train and a schedule slot along the Empire Corridor and into Penn Station could be a fatal flaw for this option.

In addition, with the requirement of a new train for the service, the cost of the entire trip would be allocated to the Berkshire Flyer service operating cost, not just the incremental segment beyond the last Empire Corridor station at Albany/Rensselaer. Allocating the cost of the entire trip (New York to Pittsfield) to the service in addition to any costs required for occupying the new train slot in the schedule would increase costs dramatically. There is no basis on which to determine whether the added operating costs could be offset by even a substantial increase in ticket revenue. The 10 minutes of saved travel time for this option is only about a five percent reduction in travel time and therefore is only likely to increase ridership and revenue by about 6.5 percent, an estimate based on historical Amtrak northeast corridor intercity ridership results. If the vacation-based ridership for the Berkshire Flyer proves more responsive to travel time savings, and ridership could be increased by 10 to 15 percent, it would generate approximately \$30,000 in annual revenue.

4.3 Option 2

Detailed cost estimates were not provided by Amtrak for Option 2, but because this option also contemplates a new train set, the estimated operating cost increases would be similar to those in Option 1B with the same set of concerns regarding train scheduling. In addition, this option would have an added cost of providing the owner of the Schodack Subdivision (CSX) an additional payment for use and maintenance of their track. It is also not known if a slot could be found in the schedule that would not interfere with existing Amtrak, commuter, and freight services on the line, or if a slot would be available at Penn Station.

5 ALTERNATIVES ASSESSMENT

A summary of the alternatives is provided based on the assumptions detailed in the previous chapters, including the conceptual service schedules, identified capital needs, and estimated ridership, revenue, and operating costs based on 20-weeks of service annually.

5.1 Option 1A

This option appears to provide the most viable set of conditions to implement a pilot service. Under this combination of route and service options, there are no significant capital improvements required, and no capacity issues have been identified. Additionally, because the service would operate as an extension of an existing Amtrak service, the operating costs would be largely limited to the incremental costs of operating between Albany/Rensselaer and Pittsfield.

- Estimated Trip Time: 3:50 – 4:00
- Estimated Berkshire Ridership: ~2,600
- Estimated Capital Cost: \$0
- Estimated Gross Operating Cost: \$421,561
- Estimated Net Operating Cost: \$237,561
- Estimated Marketing/Management Cost: \$50,000- \$100,000

It is likely that additional funding or in-kind contributions would be required to provide last mile and local transportation services for Berkshire Flyer passengers.

5.2 Option 1B

This option is similar to Option 1A except that it provides express service. The express service would require a new trainset to be operated along the corridor and would increase operating costs dramatically to account for costs along the entire distance from Pittsfield to New York City. In addition, some questions still remain regarding Amtrak's ability to operate the service as contemplated.

- Estimated Trip Time: 3:40- 3:50
- Estimated Berkshire Ridership: ~3,000
- Estimated Capital Cost: \$0
- Estimated Gross Operating Cost : TBD - but Greater than \$421,561
- Estimated Net Operating Cost: Greater than \$237,561
- Estimated Marketing/Management Cost: \$50,000- \$100,000

It is likely additional funding or in-kind contributions would be required to provide last mile and local transportation services for Berkshire Flyer passengers.

Issues to confirm with Amtrak for an express service would be:

- Availability of a train set to use for the service,
- Capacity for the train in New York Penn Station, and
- Available times to operate the service between Albany/Rensselaer and New York Penn.

5.3 Option 2

This alternative would provide a faster and more direct service than the other alternatives. However, the service would require a new trainset similar to Option 1B, and would require capital investments for the connecting track between the Berkshire Subdivision and the Schodack Subdivision and for track and systems upgrades. In addition, operating costs would increase by some undetermined amount to facilitate access to the CSX-owned track.

- Estimated Trip Time: 3:30- 3:40
- Estimated Berkshire Ridership: ~3,000
- Estimated Capital Cost: \$17.2 million to \$33.5 million +
- Estimated Gross Operating Cost: TBD - but Greater than \$421,561
- Estimated Net Operating Cost: Greater than \$237,561
- Estimated Marketing/Management Cost: \$50,000- \$100,000

It is likely additional funding or in-kind contributions would be required to provide last mile and local transportation services for Berkshire Flyer passengers.

Other issues to address with this option include:

- Availability of a train set to use for the service,
- Capacity for the train in New York Penn Station, and
- Available times to operate the service between Albany/Rensselaer and New York Penn.
- Property acquisition, permitting, and construction of a new connecting track outside the Commonwealth of Massachusetts would be a complex and expensive process.
- Amtrak use of the Schodack Subdivision would require a new agreement with CSX for use of the line and maintenance of the line to passenger rail standards. CSX has established principles for such agreements. (See Appendix E)
- Implementation of the service would be along a new segment of track that does not currently have passenger service, which would require an additional federal review and certification process and possibly other unaccounted for costs such as a new train signal system (known as PTC).

6 FARE ANALYSIS

Fares for bus service and current Amtrak passenger rail service for travel between New York City and Pittsfield were evaluated to understand the costs of other public transportation services and how a Berkshire Flyer service might fit within travelers' mode choices.

6.1 Existing Fares

6.1.1.1 Fares for One-Seat Trips

As previously identified, there are two primary bus operators that provide service between New York City and Pittsfield, Greyhound and Peter Pan/Bonanza. However, there is only one operator that provides a one-seat ride between New York City and Pittsfield. The Peter Pan service that travels from the Port Authority bus terminal in New York City, through Waterbury, CT and Great Barrington, MA provides travelers with a one-seat ride to Pittsfield. The trip is scheduled for 4 hours, 5 minutes, although it is likely that on Friday afternoons the trip time is closer to 5 hours due to traffic. The current fare for this trip is \$47 one-way or \$94 round-trip.

6.1.1.2 Fares for One-Carrier Trips

Travelers can purchase tickets from Greyhound, Peter Pan/Bonanza and Amtrak for trips entirely on their services between New York and Pittsfield. The following summarizes the existing fares for those services.

Greyhound provides service between New York City and Pittsfield either on routes that travel through Hartford, CT and Springfield, MA with a transfer in Springfield, MA or on a route that requires a transfer at the Albany Bus Terminal. Booking round-trip weekend travel utilizes both routes, traveling through Springfield on Friday and through Albany on Sunday. Each trip is scheduled to take 5 to 6 hours. The round trip fare costs \$78 dollars, with one-way fares ranging from \$30 to \$53 depending upon direction, time and fare class.

In addition to the one-seat trip provided by Peter Pan/Bonanza, they also offer additional trips that include a transfer in Springfield, MA. These two-seat trips are generally scheduled to take an additional 40 minutes and cost \$48 one-way.

Passengers can currently book Amtrak rail travel between New York Penn Station and Pittsfield. As previously identified in Section 1.4.1, the connections between Pittsfield, MA and New York Penn Station can be made daily through Albany/Rensselaer Station and would take between four hours ten minutes and four hours fifty minutes, depending upon direction. Although booking the northbound trip may not be easily found on the Amtrak ticketing system, the cost of the trip is typically \$54 or \$72 each way, depending on direction of travel and \$126 for a round trip ticket.

Unlike most bus and commuter rail services, Amtrak manages fares similarly to airlines, where fares are not set at a specific cost but vary based on trip origin/destination, time until trip, and trip demand. This fare model allows Amtrak to match fare revenue with the demand for service, thereby generating more revenue during periods of high demand. This type of fare management makes it difficult to state clearly the cost of each ticket. Revenue estimates for the Berkshire Flyer service were developed by Amtrak utilizing their ridership and fare model based on the range of possible fares within their existing fare structure. Because fare rates would vary depending on time of purchase and demand, specific fares paid were not identified by Amtrak;

however, based on the information provided, it is assumed passengers will pay on average \$70 per trip.

6.1.1.3 Fares for Multi-Carrier Trips

There are currently limited options for non-auto passenger service between New York and Pittsfield on Fridays and Sundays. Certainly options increase for travelers if portions of the trip rely on auto-based services. Options could include rental car services from Albany Station or ride shares from the MetroNorth Wassaic, NY station. However, the study and the following discussion is limited to non-auto based options, which increase from those identified in the previous section if travelers consider trips that include multiple carriers.

Multi carrier trips are not typically a popular travel option because delays by one carrier can result in missed connections and stranded passengers with limited or no carrier support. However, some price and/or schedule conscious travelers are willing to make trips on multiple carriers. Using current schedules, several itineraries were possible that included multiple carriers.

On Friday afternoons using a combination of noontime Fox Bus departure from New York and transfer to Bonanza Bus in Albany, travelers could make the trip in 4 hours 30 minutes with a one-way fare of \$41.

On Sundays, travel options are possible using multiple carriers and could result in fares as low as \$32. However, the total schedule trip times for the identified itineraries were between 5 hours 35 minutes and 5 hours 50 minutes. The Sunday multi-carrier trips include transfers at the Albany Bus Terminal and include Fox Bus and Adirondack Bus combining with Greyhound or Peter Pan/ Bonanza trips.

The multi-carrier trips provide additional departure times; but with little fare savings, longer total trip times and the added risk of missed connections, they are unlikely to be inviting options for most travelers.

6.2 Berkshire Flyer Fares

Existing Amtrak fares between New York and Pittsfield generally cost \$62 for advanced purchased tickets, but can increase or decrease depending on when tickets are purchased and demand. For comparison purposes, several other comparative Amtrak fare sets were sampled to provide comparison for the approximately 180-mile Berkshire Flyer trip:

Empire and Lake Shore Limited Corridors

- 177-mile trip Amsterdam, NY to New York Penn Station is currently priced at \$48.00;
- 201-mile trip Buffalo, NY to Utica, NY trip is priced at \$40.00; and
- 200-mile trip Boston, MA to Albany-Rensselaer, NY is priced at \$30.00; and

Northeast Corridor

- 195-mile trip Boston to Stamford, CT on the Northeast Corridor is priced at \$118.00.

From this information, the significant difference in pricing between the Empire and Lake Shore service versus Northeast Corridor pricing can clearly be seen.

Bus fares for trips between New York and Pittsfield vary based on carrier and trip departure time but are generally in the range of \$30 to \$50. Travelers certainly would each weigh the benefits of

travel by train for improved amenities, travel time consistency (no travel delay due to traffic), and overall trip time against the additional cost when making their travel decisions.

Considering all these factors, a one-seat ride service for the Berkshire Flyer would fit in with the current market at between \$65 and \$90 one-way, given the premium nature of Amtrak one-seat rider service and its consistency with the existing Amtrak pricing structure for service between New York and Pittsfield. Given the study goal of following the Cape Flyer pattern of fully funded service, it would be important to determine whether the market would support a further premium for the service if that was needed. Amtrak estimates 2,600 riders for this contemplated service based on their existing fare structure. In order for the service to be fully self-funded, either more passengers would need to be attracted or additional revenue would need to be generated from each passenger. A detailed ridership fare and ridership response analysis was not conducted, but based on 2,600 seasonal trips, the estimated cost per trip is \$162.13. It is likely that fares for this service, which is focused on weekend discretionary travel, could be charged at rates above the standard Amtrak fare so that the required financial support would be reduced. Additional analysis would be necessary to develop passenger profiles that could be used to calculate the appropriate fare premium that would maximize revenue from each generated trip.

7 MARKET ANALYSIS – MARKET IDENTIFICATION AND DEVELOPMENT

7.1 Travel Markets

In accordance with the legislative provision that prompted this study, the initial service being evaluated for the seasonal Berkshire Flyer service is focused on weekend travel from New York City to Berkshire County and is projected to serve two primary markets:

- Weekend tourists from New York City destined to the many cultural and other attractions in the Berkshires, and
- Visitors going to second homes in Berkshire County whose primary residences are in New York City.

There is significant interest among the Working Group in other markets (including Berkshire – based business travelers who go to New York City during the week and Berkshire County residents going to New York City for the weekend) but those markets are not the focus of this study, although they might be incidental beneficiaries of some of the contemplated service.

A summary of available data and information related to the size and attributes of each primary target market is being provided. The data does not provide a complete picture or size for each market as it is being compiled from data made available to or by the Working Group, including a Berkshire Flyer Market Research Report developed by students from the Massachusetts College of Liberal Arts, which is included as Appendix C.

7.1.1 Berkshire County Attractions Market

The tourist sector is an important component of Berkshire County economy. The Massachusetts Office of Travel and Tourism estimate that during the 5 year period (2010-2014) domestic visitors spent over \$380 million in Berkshire County supporting 3,100 employees and \$92 million in payroll. In addition to supporting jobs domestic visitors paid about \$19 million in state taxes and \$11 million in local taxes over that period.

Although specific data on annual visitors is not readily available, there are approximately 3,000 hotel rooms available in the county, plus countless smaller bed and breakfasts and inns and a growing number of Airbnb rooms available. Based on an accounting of occupancy of the approximately 3,000 hotel rooms, it is estimated that over 500,000 room nights each year are sold in Berkshire County. In addition, at least another 10,000 guests are hosted in Airbnb rooms each year (See Appendix F), especially during the summer time when demand soars. Based on data provided by the Massachusetts Office of Travel and Tourism and survey data collected by the Working Group, it appears that 12% to 18% of visitors come from the New York metropolitan area, although some anecdotal information indicates and Working Group members believe that New York metropolitan area visitor counts are higher. See MCLA Report in Appendix C for a sample of the information collected.

Tourism in Berkshire County has two primary peak seasons, one in the summer and the other in October, focused around the fall foliage season and Columbus Day weekend. Lodging information and occupancy rates, as shown in Figure 14, indicate that the peak tourism season

extends from July through October. Based on this data it appears that demand for travel may be greater in September and October than in late May and June.

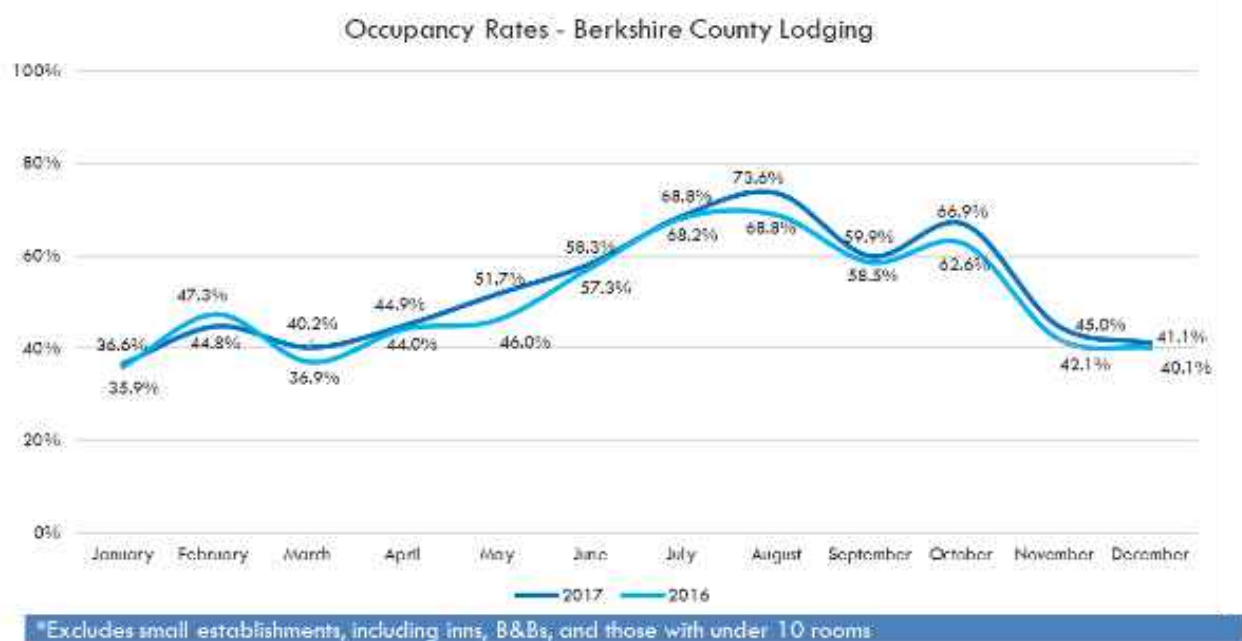


Figure 12: Berkshire County Monthly Occupancy Rates

7.1.2 Second Home Market

One of the travel markets of interest are owners of second homes in Berkshire County with their primary residence in the New York metropolitan area. In this context, “owners” includes visitors and renters. As can be seen in Table 6 and Figure 15 there are about 2,500 second home owners in Berkshire County with primary residences in the New York metropolitan area. When only considering the New York City area and the immediately surrounding counties, the number drops to approximately 1,630. When the area under consideration is matched up with a core area of projected rail ridership demand, which would be limited to New York County (Manhattan), the number of second homeowners is 1,239.

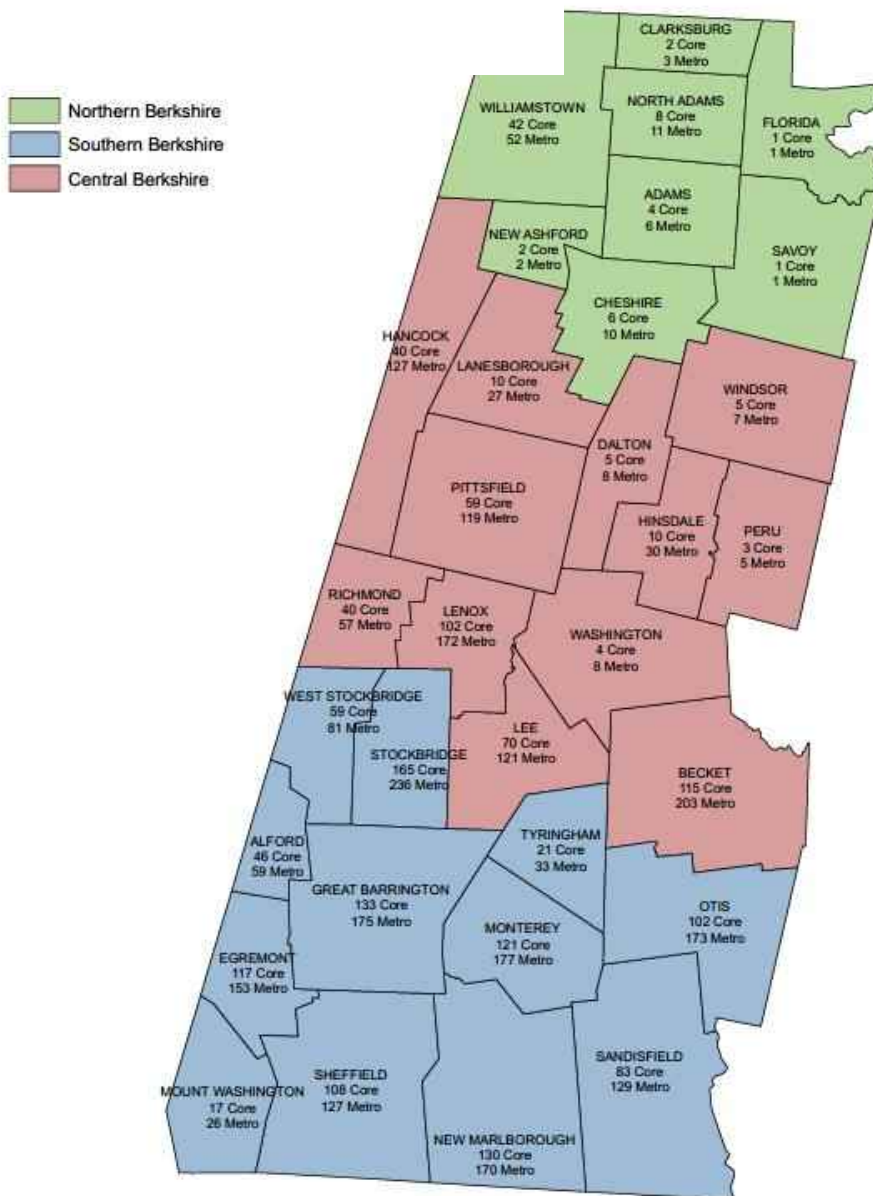
7.1.3 Zero Car Households

The New York residents who are most likely to use seasonal, direct rail service to Berkshire County are Manhattan residents. In Manhattan, there are approximately 582,100 zero-vehicle households.⁶ Other portions of the New York metropolitan areas, such as Brooklyn, also have sizable numbers of zero-vehicle households and may be potential Berkshire Flyer riders; however, data indicates that riders of comparable services north of New York are dominated by Manhattan and Westchester County residents.

⁶ U.S. Census Bureau (2018). 2012-2016 American Community Survey
<https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>

The large population of zero-vehicle households from Manhattan are most likely to travel where a vehicle is not required. Improving transportation options for travel to, and within Berkshire County would be an important component of improving the attractiveness of the county as a tourist destination. Although specific numbers of travelers from zero-car households cannot be specifically calculated, economic benefits can be inferred if this population chooses the Berkshires as their vacation destination.

Figure 13: Berkshire County Second Home Owners from New York City Metropolitan Area



(Source: Berkshire Regional Planning Commission)

Berkshire Flyer: Pittsfield-New York City Feasibility Study

Table 6: Number of Second Home owners from New York area by town

Berkshire County Community	New York City Core Area	New York City Metropolitan Area
Adams	4	6
Alford	46	59
Becket	115	203
Cheshire	6	10
Clarksburg	2	3
Dalton	5	8
Egremont	117	153
Florida	1	1
Great Barrington	133	175
Hancock	40	127
Hinsdale	10	30
Lanesborough	10	27
Lee	70	121
Lenox	102	172
Monterey	121	177
Mount Washington	17	26
New Ashford	2	2
New Marlborough	130	170
North Adams	8	11
Otis	102	173
Peru	3	5
Pittsfield	59	119
Richmond	40	57
Sandisfield	83	129
Savoy	1	1
Sheffield	108	127
Stockbridge	165	236
Tyringham	21	33
Washington	4	8
West Stockbridge	59	81
Williamstown	42	52
Windsor	5	7

(Source: Berkshire Regional Planning Commission)

7.2 Destination Transportation Options (Last Mile)

The Working Group identified that although travel to Berkshire County from New York may be difficult during weekend periods, travel to destinations within the County is not difficult if a vehicle is available. Because train passengers would arrive in Pittsfield without a car, it would be essential to provide some way for tourists to get from destination to destination. Most major destinations in the county are not easily accessible from the Pittsfield Station by foot and therefore it would be important to consider how tourists would travel upon arrival and to proactively address this function as part of the project.

During development of the Cape Flyer, these same types of last mile issues were evaluated. Although the Cape Cod travel issues are different from those in Berkshire County, such as weekend bridge congestion and the ferry connections to the Islands, an understanding of the connections that were made or enhanced with the Cape Flyer can be instructive.

The Hyannis Train Station is located at the Bus Station, which has multiple routes operating from Hyannis to destinations across Cape Cod. Passengers can easily transfer from the train to a bus. Because the train service is sponsored by the regional transit authority, they were easily able to assess how service connections could be made.

The Hyannis Ferry Terminal is within a 10-minute walk from the train station. The Ferry Terminal provides frequent services to both Martha's Vineyard and Nantucket. This connection is an important one for the Cape Flyer, because many visitors to the Islands prefer to go car-free and the train provides that easy connection, without the need for a car or the expense of parking.

For visitors that are more focused on Hyannis as a destination, the Cape Cod Regional Transit Authority (CCRTA) operates a Hyannis Trolley during the summer months. The trolley is operated every 30 minutes throughout the day, and provides connections between the Hyannis Train Station and other destinations in Hyannis.

In addition to the service connections listed above, the CCRTA worked with area businesses and hotels to market the service and provide travel packages that included both train travel and lodging. Many partners will provide local transportation for their guests. The CCRTA worked to facilitate the integration of car rental and transportation network companies (such as Uber) into the local transportation network so that travelers using the Cape Flyer had numerous options for local travel.

Implementation of the Berkshire Flyer would require the same type of diligence and coordination to ensure that train travelers have options for local travel. The success of the train service would depend on how easily connections can be made without a car across Berkshire County.

Potential opportunities for improvements to local car-free travel in Berkshire County could include:

- Working with local destinations and hotels to develop tourist packages that include shuttles/vans for local transportation.
- Considering partnerships with TNCs to make local travel cheaper and easier. In some cases, localities and transit agencies have collaborated with TNCs to provide discounts for transit users and to integrate the companies' app into the public transit agencies' websites.

- Integrating car rental and/or car sharing options (such as Zipcar) into the transportation network. Since in some cases automobiles would be the best transportation option for a local trip, providing easy access to an auto may be beneficial. Some car sharing companies, similar to Zipcar, will locate cars in new areas if they are sponsored so that they can ensure the car will generate enough revenue to support the maintenance and upkeep. Future actions around the replacement of the Columbus Avenue parking garage in Pittsfield should be considered when examining integrating car rental and car sharing options in the region.
- Local bus coverage, both in terms of geography and schedule, may be re-evaluated to accommodate more car-free travelers during the peak season. Support for local travel could include seasonal modifications to existing routes or deploying a new service, as was done in Hyannis with the Hyannis Trolley.
- Bicycle rentals may be able to be provided in the City of Pittsfield, providing passengers with a potential travel option during their visit. While Amtrak did not provide information on bicycle storage possibilities on its existing trains, this may be something that could be further examined.

Identifying ways for travelers to get around Berkshire County to their desired destinations would be as important for the success of the seasonal rail service as getting the passengers on the train. There are many successful examples that could be evaluated, such as the ones identified above, and could be successful within the context of Berkshire County.

7.3 Peer Comparisons

There are a number of Amtrak services that operate to tourist-focused destinations that can provide insight into the level of demand passenger rail services can support.

Rutland, Vermont is a destination easily reached by train from New York and is the major commercial center for many of the Central Vermont tourist-based destinations. From Rutland, Amtrak Thruway bus connections are made to the Killington Grand (ski) Resort. The 5- to 6-hour train trip on the Ethan Allen Service from New York Penn Station to Rutland can be made on Friday and Sunday afternoons with schedules made to accommodate weekend travelers. During 2017, it is estimated that there were 1,950 one-way trips to and from Rutland on Fridays/Sundays during the summer/early fall season.⁷

Lake George/Fort Edward-Glens Falls, New York is another tourist-focused destination that can be reached from New York City on the Ethan Allen service or the Adirondack service. The trip between New York Penn Station and Fort Edward Station is 4 to 4 ½ hours long. Lake George, which is the primary tourist draw in the area, is about a half hour from the Fort Edward-Glens Falls train station and can be accessed via a van/car service that is advertised and promoted by

⁷ There were 14,267 boardings and alightings made at Rutland Station in 2017. 45 percent of Amtrak trips to Vermont were made during the summer/early fall season. Based on a review of Amtrak data for other New England services, typically 30 percent of trips are made on Fridays/Sundays/

Amtrak. During 2017, it is estimated that approximately 1,500 one-way trips were made on Fridays/Sundays during the summer/early fall season.⁸

Freeport, Maine is yet another tourist-focused destination accessible by train in New England. Freeport is accessible from Boston on the Downeaster Service. The three-hour trip from Boston can be made on Fridays/Sundays. The train station is located in downtown Freeport and is within walking distance to hotels and outlet stores. In 2017, the station had about the same number of total annual boardings and alightings as the Fort Edward station, so the estimated summer/early fall season weekend trips would also be about 1,500 one-way trips.

Williamsburg, Virginia is a highly visited tourist destination in the Mid-Atlantic that is accessible via train. Williamsburg is a four-hour trip from Washington DC with two or three trips available each day between the two destinations. Williamsburg has multiple cultural attractions, such as Colonial Williamsburg with about 1 million visitors annually, a college, and hosts sporting events that also brings in visitors. The train station at this major tourist destination serves over 60,000 boardings and alightings annually, and if travel patterns are similar to those in the Northeast, it is expected that about 8,000 one-way trips are generated on Fridays/Sundays during the summer/early fall travel season.

Based on comparisons of Amtrak ridership to tourist-based destinations in New England that are a similar distance from a major metropolitan area, it is reasonable to expect a seasonal weekend Berkshire Flyer train service to provide 1,500 to 2,000 one-way trips.

7.4 Travel Demand

Even though comparable markets provide an example of the possible demand for a service, the best way to estimate travel demand is with detailed data and modeling of that specific trip. However, travel data for long-distance travel is not easily available and typically involves detailed surveying and trending analysis to get accurate data. The Federal Highway Administration developed a data set titled the Traveler Analysis Framework, which provides estimated volumes of origins and destination across the country for trips over 100 miles on all modes of transportation. Although the dataset is developed using 2008 information, it is still the most valid source of long-distance travel data. To develop the data, FHWA blended multiple data sets, including the American Travel Survey and the National Household Travel Survey, all with varying levels of detail.

It is also worth noting that most long-distance travel volumes, especially in the Northeast, have not changed dramatically from where they were in 2008. Although total travel dropped significantly in 2009 and 2010, volumes for travel on all modes has been generally increasing since that time, so that we are now at a place where volumes are within 5% to 10% of the 2008 volumes.

⁸ There were 9,917 boardings and alightings made at Fort Edward Station in 2017. It is estimated that this station had a focus on summer travel and therefore about 50 percent of trips were made during the summer/early fall season. Based on a review of Amtrak data for other New England services, typically 30 percent of trips are made on Fridays/Sundays/

The Traveler Analysis Framework (TAF) is countywide data and includes traveler information between the New York metropolitan area counties and Berkshire County. This data was assessed by the study team and compared to known rail ridership volumes in the area to understand how well the data is calibrated.⁹

Using the TAF data, total travel between some of the peer locations discussed above was compared to gain an understanding of the percentage of total trips that the rail mode could reasonably expect to serve for these types of longer distance trips.

In assessing the data, it was first important to understand what counties should be considered for the origin and destination locations. A careful review of rail travel data was made to understand which counties generated significant ridership for trips out of the New York area to the north. It was determined that rail ridership was dominated by travelers from New York County (Manhattan) with over 95% of all ridership.. The remaining counties (Boroughs) of New York generated less than 1% each, which include Kings County (Brooklyn), Bronx County (The Bronx), Richmond County (Staten Island), and Queens County (Queens). In addition, ridership for Nassau County (Long Island) was also assessed and showed negligible ridership on train trips north of New York City. This reflects typical ridership responses to cost and travel time because New York Penn Station is located in Manhattan and travelers from other Boroughs would incur additional travel cost and time to access Penn Station before boarding and traveling northward. Based on this information, it is reasonable to narrow the focus of travel demand analysis to primarily New York County (Manhattan).

**Table 7: Annual Trips New York County to Central Vermont
(Ethan Allen Service)**

Mode	Trips	Percentage of Total Trips
Auto (non-business)	232,000	70.5%
Auto (business)	46,000	14%
Bus	35,000	10.5%
Rail	16,100	5%
Total	330,000	

Source: Traveler Analysis Framework, 2008

⁹ TAF data is a compilation of actual ridership counts, traffic counts, and aircraft enplanements and travel surveys; and provides counties of origin/destination and primary mode of travel. When travel survey data indicates trips are made by multiple modes, such as both rail and car, the traveler identifies the primary mode.

**Table 8: Annual Trips New York County to Lake George/Fort Edwards
(Ethan Allen/Adirondack Service)**

Mode	Trips	Percentage of Total Trips
Auto (non-business)	100,000	68%
Auto (business)	23,000	16%
Bus	15,000	10.5%
Rail	8,000	5.5%
Total	147,000	

Source: Traveler Analysis Framework, 2008

Using that typical mode share and an understanding of the total trips between New York and Berkshire County, a useful estimate of rail ridership demand can be made. Analysis of the TAF data identified that the rail mode generally achieves a five percent mode share when rail service is readily and easily available

The TAF data identified that an estimated 435,000 annual trips are made between New York County and Berkshire County. Currently 1.5 percent of those trips are made via rail. These trips may be on the existing rail services or made predominately (but not entirely) by rail, such as a train trip from NYC to Albany/Rensselaer with a family pick-up/drop-off for the remainder of the trip. Increasing the rail mode share to the five percent rail mode share achieved in other markets would total 23,500 one-way trips. Achieving this level of ridership would require frequent rail service that is easily accessed. Based on the same level of demand, the target for the 20-week seasonal weekend service would be approximately 3,200 one-way trips.

Table 9: Annual Trips New York County to Berkshire County

Mode	Trips	Percentage of Total Trips
Auto (non-business)	334,000	77%
Auto (business)	66,000	15.5%
Bus	26,000	6%
Rail	7,000	1.5%
Total	435,000	

Source: Traveler Analysis Framework, 2008

These travelers would include a mix of those who would be shifting their mode travel (they would make the trip even if the train were not available) and new travelers (they would not travel to the Berkshires if they could not take the train). Surveys of Amtrak passengers regularly report that approximately eight percent of all Amtrak passengers would not have made a particular trip were it not for the availability of Amtrak service.

7.5 Amtrak Travel Model

In addition to assessing the travel market, MassDOT requested Amtrak to estimate the anticipated level of ridership anticipated on the seasonal service. Amtrak has a nationwide intercity travel demand model that is used to evaluate new services and service changes on its network. Amtrak has been using and improving their ridership methodology for decades. Amtrak has estimated that the service would serve approximately 2,600 passenger trips (one-way) for the 20-week season.

The three methodologies that were used to estimate demand provided similar results with the following:

- Peer service information estimate 1,500 to 2,000 trips
- Amtrak model estimate 2,600 trips
- Traveler Analysis Framework data, 3,200 trips.

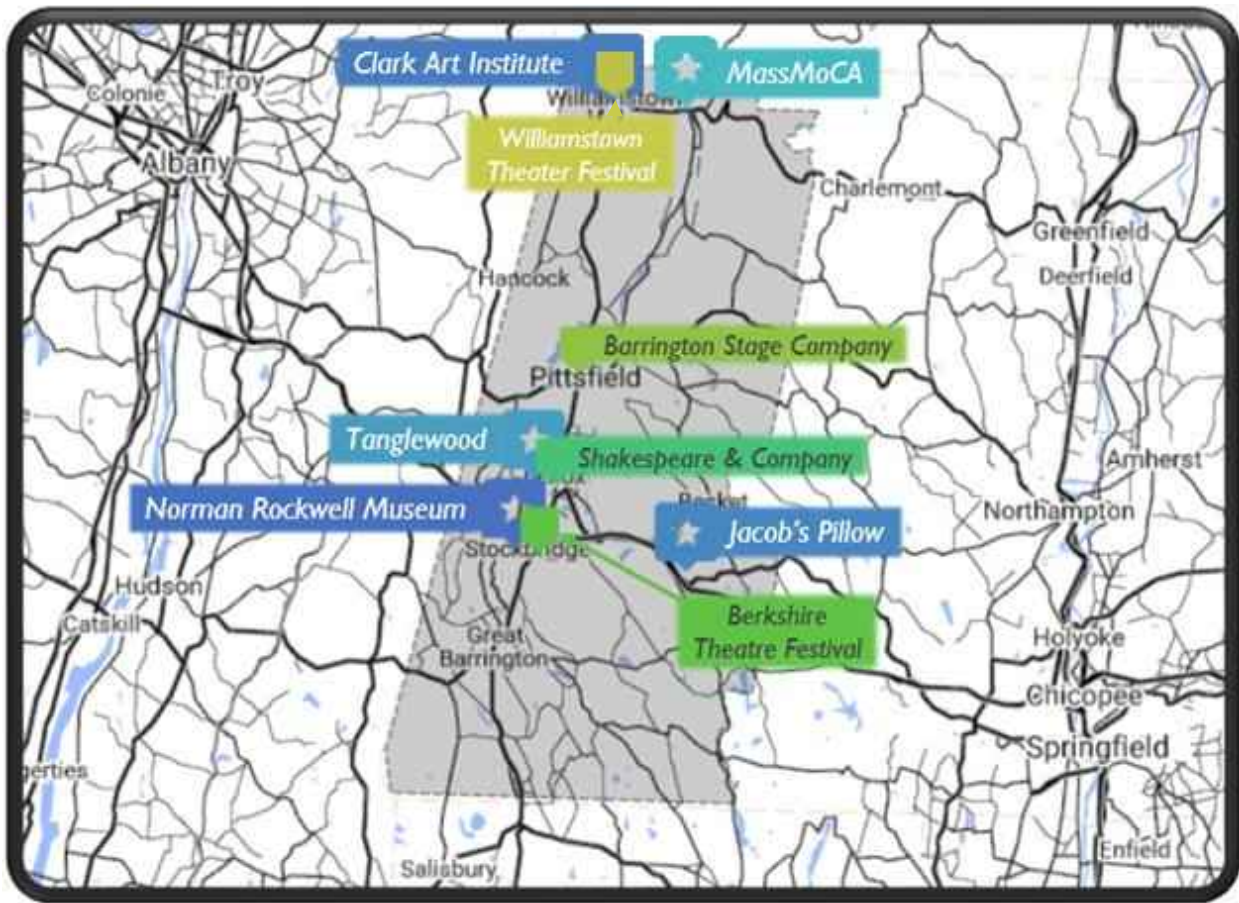
Therefore, using the median value, it is estimated that a well-run and -scheduled seasonal weekend service that provides reasonable connecting transportation would serve approximately 2,600 one-way trips.

7.6 Regional Benefits

7.6.1 Tourist Economy and Marketing

The Berkshires are a popular vacation destination, known for their natural beauty and recreational opportunities. According to the County's Comprehensive Economy Development Strategy (CEDS) 2017 report: "A large seasonal population of urbanites has second homes or stays in resorts and motels, camp at the numerous state parks, visit friends, or simply drive through the area."¹⁰{pg. 2} Natural landscapes are complemented by major cultural institutions throughout the area, such as the Clark Art Institute, Jacob's Pillow Dance Festival, Tanglewood, Massachusetts Museum of Contemporary Arts (MASS MoCA), Norman Rockwell Museum, and theatrical performances at: the Barrington Stage Company in Pittsfield, Berkshire Theatre Festival in Stockbridge, and Shakespeare and Company in Lenox, and Williamstown Theater Festival. Other large attractions may be added in the coming years, such as the proposed Extreme Model Railway and Contemporary Architecture Museum.

¹⁰ Berkshire Regional Planning Commission (December 2017). *Berkshire County Comprehensive Economy Development Strategy (CEDS) 2017*. http://berkshireplanning.org/images/uploads/documents/BRPC_2017_CEDS_-_12.20_17_FINAL_.pdf



(Source: MassDOT)

Figure 14 Major Attractions in Berkshire County

Information from 1Berkshire lists seeing museums or historic sites (79.5%), seeing performing arts (59.2%), and engaging in outdoor recreation (36.9%) as among the top reasons for visiting the area, as shown in Appendix A.

The County's CEDS illuminated areas of strength and opportunities to leverage and facilitate economic development. The CEDS also underscores the challenges facing the Berkshire County economy, namely population loss attributed to an outmigration of people within the age range of 18 to 35 years old. The region sees opportunities in promoting innovation, expanding fiber optic connections, enhancing passenger rail service, redeveloping industrial mills, generating entrepreneurial incubation, and capitalizing on development and the agriculture and forestry economies {pgs. 34-36}.¹¹

¹¹ Berkshire Regional Planning Commission (December 2017). *Berkshire County Comprehensive Economy Development Strategy (CEDS) 2017*. http://berkshireplanning.org/images/uploads/documents/BRPC_2017_CEDS_-_12.20_17_FINAL_.pdf

Expanding rail service is widely seen as beneficial to economic development. A survey conducted by realtors and community members reflected their local support for providing increased weekend rail service. The majority of those survey respondents said that a new rail service would be valuable, could contribute to higher property values, and be used as a marketing tool. The survey appeared to focus solely on the concept of rail. The survey did not specify the type of rail service, its scheduled duration, or its price range.¹² Additionally, expanding rail service through the City of Pittsfield, in particular, has the potential to enhance the city's economy around the station by attracting more visitors and businesses.

It would be important in the marketing effort for the Berkshire Flyer to target and focus on passengers that would be drawn to and supportive of Berkshire businesses. Tourist travel marketing often links together local institutions, attractions, lodging and the local/regional economic development efforts so that it can be both effective and provide the most benefit to the region.

7.6.2 Examples of Intercity Rail Service Marketing by Service Sponsors

Regional examples of intercity rail marketing effort include the Amtrak Downeaster's support of the Freeport, ME economy. The Downeaster started serving Freeport in 2012 and has been working cooperatively with the local Chamber of Commerce to create media campaigns about Freeport as a destination. The service sponsor (NNEPRA) also supports local tourism by marketing and supporting local events, especially during the holiday shopping season. The close cooperation between the service sponsor and local businesses leads to success for both organizations.

Another regional example is the 'Downtowns by Rail' program that is offered by the Vermont Agency of Transportation on the Amtrak Vermonter. This program is focused on supporting Vermont's downtowns, home to unique local businesses, historic architecture, and cultural and social activities. The program provides a discount for travel between Vermont stops and offers lodging packages that include other activities, from mountain bike rentals to cooking classes and horse-drawn carriage rides. The program has also arranged to include shuttle or taxi service from the train station in some of the travel packages.

These are just two examples where the local and regional sponsors have worked closely with area businesses to market intercity rail service in ways that leverage local connections to maximize the service economic benefits. Similar efforts would be needed for the Berkshire Flyer, especially during the initial year of service, to ensure the service is linked with the attractions of Berkshire County.

7.6.3 Regional Market Benefits

Market data has been hard to find, which makes it very difficult to project the regional benefits of the contemplated service. The Massachusetts Office of Travel and Tourism (MOTT) reports that the tourism economy in Berkshire County supports 4,008 jobs and provides a total economic

¹² SurveyMonkey (2017). *NYC to Berkshire Rail Service – Berkshire Weekend Flyer Train Working Group Feedback*. <https://www.surveymonkey.com/r/trains2017>

impact of \$739 million.¹³ Unfortunately, the number of visitors to Berkshire County is not tracked and it is not known what percentage of them come from the New York City area. According to the 2017 CEDS report and 1Berkshire “a large percentage of visitors to the region come from New York City or Boston {pg. 28}”¹⁴ (see Appendix A), but the Working Group was unable to find definitive data from a range of attractions to quantify this intuitive assertion. A MCLA Berkshire Flyer Market Research report written by students at Massachusetts College of Liberal Arts (MCLA) found that roughly 55 percent of New York City area visitors surveyed specified they traveled for a few days and mainly visit for the cultural attractions in the area.¹⁵ From the limited data provided from attractions that provided visitor counts, New York Metro area visitors appeared to represent between 12 to 18 percent of total tourism visitors.

If 18 percent of visitors are from the New York Metropolitan area, that would translate to roughly 110,000 tourism visitors annually to the Berkshires if statewide tourism data from the Massachusetts Office of Travel and Tourism is assumed to accurately reflect the economics of tourism in the Berkshires. Using those assumptions, tourism from the New York Metropolitan area would then account for \$80.4 million in local spending each year and some 41,000 stays¹⁶ per year.

The Berkshire Flyer concept could help support the tourism industry in Berkshire County if new visitors are drawn to the Berkshires because of a one-seat train ride. According to Amtrak surveys, around 8 percent of Amtrak riders would not have made the trip had it not been for Amtrak service. That suggests that a Berkshire Flyer service might add 8% to Amtrak’s ridership, a metric that is useful in assessing potential ridership. However, unlike the Cape Flyer service that sought to address a longstanding highway chokepoint, the economic focus for the contemplated Berkshire Flyer service is an increase in visitors, not simply a mode shift. The basis for establishing how many new visitors would come to the Berkshires if there is a train remains uncertain and subjective, although it can reasonably be assumed that such a service would be appealing to some portion of New York City residents, particularly those who do not own a car, and that those new visitors would have a positive economic impact.

The strong support that the business community, residents, and visitors expressed in the two surveys, and the intuitive value that members of the Working Group see in train service, would be key to realizing regional economic benefits from the new passenger rail service that the Working Group identified as the most immediately viable rail option. This enthusiasm and support could be harnessed by a local marketing coordinator to establish the types of travel packages and service connections that are important to make a tourist-focused service successful.

¹³ Massachusetts Office of Travel and Tourism (2018). *Allocation of 2016 Domestic & International Spending of \$20.7 B by RTC* (Note: Total economic impact is calculated based on direct, indirect, and induced spending)

¹⁴ Berkshire Regional Planning Commission (December 2017). *Berkshire County Comprehensive Economy Development Strategy (CEDS) 2017*. http://berkshireplanning.org/images/uploads/documents/BRPC_2017_CEDS_-_12.20_17_FINAL_.pdf

¹⁵¹⁵ Massachusetts College of Liberal Arts, Math-444 Operations Research (December 2017). *Berkshire Flyer Market Research Report*. http://berkshireplanning.org/images/uploads/announcements/MCLA_Berkshrie_Flyer_Report_Jan_2018.pdf

¹⁶ Note: a stay was calculated by the total number of room nights and an assumed average of 2.5 lodging nights, only calculated for establishments with 10 or more rooms, and excluding B&Bs and other smaller lodges

8 NEXT STEPS

8.1 Study Summary

The purpose of the Berkshire Flyer Study is to evaluate the potential for using a route through New York to provide seasonal, weekend-focused, passenger rail service between Pittsfield, MA and New York City. Specifically, the study goals were to document the political, legal and logistical challenges of implementing direct seasonal service, while also identifying and evaluating the economic and cultural benefits of such a service.

The study identified two potential routes between Pittsfield and New York Penn Station with three operating options. Based on an assessment of those routes and options, one combination was identified that could work within the preferred implementation approach of initiating the service using a regionally supported “pilot program” that would test the concept before significant investment or long-term commitments were made, as was done for the Cape Flyer service. The preferred option is a route using the same tracks as the existing Empire Corridor service and Lake Shore Limited service, connecting in Albany/Rensselaer. This Friday/Sunday seasonal service would not require capital improvements and could be operated by Amtrak utilizing their existing equipment.

It is estimated that the annual financial cost for train operations would be approximately \$237,561 if the estimated service revenue could be captured and the service would carry 2,600 passengers over a 20-week season. In order to implement the Berkshire Flyer service, certain actions beyond funding for the service itself would be necessary to advance the project and develop an efficient service that provides the maximum benefits to the Commonwealth and Berkshire County. Those other actions are discussed below (for example, marketing and enhanced local travel options).

This study has outlined and evaluated alternative routes and service patterns that could be pursued if there were substantial interest in establishing a seasonal, weekend-focused, passenger rail service similar to the Cape Flyer between New York City and the Berkshires. Amtrak has been a helpful partner in this evaluation and the New York State Department of Transportation has informally indicated that it would be willing to discuss such a service being added to the routes that already exist on the Empire Corridor and using the Albany/Rensselaer Station.

8.2 Implementation Actions

The following are actions to consider in advancing implementation of the Berkshire Flyer seasonal passenger rail service concept.

Identify Source of Operating Support

Operation of the service as currently conceived would require approximately \$421,561 in operating costs and an estimated \$50,000 to \$100,000 in service management and marketing costs, totaling approximately \$520,000. This amount is based on the identified service schedule and season duration (20 weeks). Based on estimated ridership (2,600 trips), the estimated service revenue would be \$184,000 which would be used to reduce the total costs to \$336,000. The actual financial support needed would vary with changes to the season duration and actual ridership.

The service management cost is an estimate of ongoing (annual) costs, however initial year start-up costs may be greater. For example, in the CapeFLYER experience, roughly \$110,000 to \$120,000 was spent in the first year, but it became far less in later years.

It is possible the amount of financial support could be reduced. One approach would be to shorten the duration of the season. As noted in Chapter 7, the peak tourist season is in July and August, with a second smaller peak in the fall. In an effort to limit the required financial support, the season could be shortened to eliminate either the May/early June weekends, the weekends after Labor Day, or both. Another approach would be to consider increasing the fare to Pittsfield for the Berkshire Flyer trips. Although the existing Amtrak fare is appropriately priced at the top of the market, there may be room for increasing the fare without substantially affecting ridership. Tourist passengers are typically less sensitive to price increases than commuters or frequent travelers. For example, the financial support could be reduced by \$20,000 with an increase in the fare by \$10 per trip.

Alternatively, it may be prudent to consider requesting support from entities that would benefit from the increased accessibility. Financial support could be requested through contributions from individual institutions, business coalitions, or other local sources. The combination of reducing the needed support through service changes, along with some contributions, may bring the needed support down to a level that could be funded through reallocation of existing municipal or regional budget line items. Tourism entities may be able to offer some assistance with marketing and developing an understanding of the tourist market.

One potential source of operational funding is the Federal Railroad Administration's Restoration and Enhancement (R&E) Grants Program. A Notice of Funding Opportunity was recently released for this federal grant program, which is for "Operating Assistance grants for Initiating, Restoring, or Enhancing Intercity Rail Passenger Transportation". The program would fund between 40% and 80% of the net operating costs for up to three years. This is a national competitive discretionary grant program with only \$4.7 million in annual funding, so funding is not assured. The Berkshire Flyer service would be evaluated in comparison to other intercity rail programs. Applications for funding are due May 22, 2018.

Pilot Program Evaluation

Prior to initiating any Pilot Program, it is important to understand the goals of the program, what outcome would be considered successful, and how long the pilot is intended to last. Last year, the MBTA developed a Policy on the Evaluation and Selection of MBTA Service Pilots to assist it with defining and evaluating successful service pilot projects. Although this policy is not directly applicable to the Berkshire Flyer, it does provide some components that should be considered before implementation of the Berkshire Flyer is advanced. The most notable components are:

- *Pilots need to have a clear and consistent sponsor* –A Service Sponsor needs to have the capacity to provide the financial support and focus necessary to pursue implementation of the concept, typically called a "project champion".
- *Pilots need to have demonstrated public support behind them* – The Service Sponsor and other stakeholders would need to justify the projected expenditures. Developing and/or compiling additional information on the tourist economy in Berkshire County and the related economic impacts and benefits would be helpful in that justification.

- *No pilot will be approved for implementation without a prior commitment ...to the metrics below:*
 - *A ridership target for the pilot expressed as both total ridership over the pilot period and average daily ridership,*
 - *Projected revenue for the pilot service*
 - *A performance measure that best measures whether and by how much a pilot achieves the goals originally established for it.*

Prior to the start of the Pilot, it is important to establish a time frame for the pilot (1-2 years) and metrics related to ridership, revenue and other service-related outcomes (i.e. on-time performance, customer satisfaction, community support) to be able to gauge the results and to program financial support for future operating seasons.

Service Sponsorship

To replicate the success of the Cape Flyer, more would be required than just requesting that Amtrak provide the service. Local leadership would be essential for marketing, coordinating connecting services, wayfinding, and providing the local/regional support activities (parking, ticket sales, etc.) that customers would expect. As noted above, a local sponsor would be required to manage the service. This effort includes both advocating for the service and carrying out the support activities listed above. This sponsorship also requires some dedicated funding to operate and can add 10% to 15% to the gross operating costs of the service. It should be noted that the level of effort during the first year of service could double, requiring both additional staff time and associated financial resources.

Last Mile/Local Transportation

For the Berkshire Flyer, the success of the service would also require implementation of additional local transportation services. This study identified a number of opportunities but there are certainly additional services that could be considered. Prior to implementation of the service, the local transportation/last mile issues would need to be more fully vetted, evaluated and addressed. This would require significant local coordination to identify primary origins and destinations, existing services and service gaps, transportation opportunities and improvements, service partners, preferred modes/services and coordination on implementation. As an example, if the Berkshire Regional Transit Authority charged a special fare to cover all its costs, it might be able to provide some of the local connections, particularly on Friday afternoon when it offers service now, and it might help coordinate service provided by others.

Developing a vision and implementation plan for additional transportation options in Berkshire County is essential for the success of the Berkshire Flyer, but would also have benefits well beyond the rail service. As transportation changes progress in the coming years with the quickening implementation of autonomous and connected vehicles, TNCs, car/bicycle sharing, and other transportation technology advances, it would be important for the Berkshire County economy to react and respond. It may be easier to understand how many of the technologies listed above fit into urban locations, but proactively integrating those changes into transportation plans for rural tourist-focused economic development will be crucial for success, as the travelers and tourists move away from the current auto-ownership-focused system. Development of a plan for local last-mile transportation will be important for both the Berkshire Flyer and the wider tourist economy of the Berkshires.

8.3 Next Steps

There are numerous actions required to implement a successful passenger rail service. It is anticipated that it will take a minimum of nine to 12 months to carry out the activities needed for a seasonal Amtrak service, although it could take longer depending on the availability and programming of funds. Particularly important are supportive activities such as the development of “last mile” services for Berkshire Flyer customers and a robust marketing effort that would help establish partnerships with local stakeholders. This work could target a service start-up in the summer of 2019 or 2020. For a service to be widely supported there are a number of other actions that would be necessary.

- Identify a local Service Sponsor that would progress project implementation actions. The sponsor would organize the necessary implementation actions, such as compiling and documenting project justification data and information, developing a long-term sustainable financial plan, developing and implementing a marketing plan, and organizing local transportation connections. In addition, the Service Sponsor would hold the ultimate financial responsibility for the project, and could seek additional funds to bolster the initial viability of the service.
- Although the start of the financial plan has been established through information provided by Amtrak for the operating cost, the additional implementation costs, such as marketing and management, need to be refined and quantified to determine the overall service costs. MassDOT could provide support in coordinating with Amtrak and NYSDOT, but local financial support would be key to any steps.
- Estimated ridership and revenue has been included as part of the Feasibility Study based on a set of service assumptions. Upon completion of a financial plan and further service development, metrics that define success for the service would need to be established. Metrics that would lead to continued operation would include ridership and revenue targets as well as other metrics that will define and identify the benefits of the service to Berkshire County and the Commonwealth

APPENDIX A – Berkshire County Tourism Impact



2016 Berkshire County & Massachusetts Tourism Impact

Berkshire County:

Direct visitor spending: \$462.1 million (Domestic-\$420.7 million, International- \$41.4 million)

State Tax Receipts: \$24.17 million

Local Tax receipts: \$13.41 million

Jobs Supported: 4,008

Payroll: \$121.7 million

→ Total 2016 economic impact: \$739 million

State of Massachusetts:

Direct visitor spending: \$20.7 billion (Domestic -\$17.9 billion, International -\$2.8 billion)

State Taxes: \$859.2 million

Local Taxes: \$518.2 million

Jobs supported: 138,984

Payroll: \$4.8 billion

Berkshire Visitor profile:

Median age: 52

Median HHI: \$100,200

Married: 80.3%

College Educated: 55%

Travel preference

Travel as couple: 65%

Travel with children: 20%

Top Places of Origin

New York City metro

Boston metro

Hartford/New Haven

Rest of Massachusetts & New England

Activities Engaged In While Visiting the Berkshires:

Museums/historic sites: 79.5%

Performing arts: 59.2%

Outdoor recreation: 36.9%

Updated: October 2017

APPENDIX B – PITTSFIELD WYE TRACK

There is currently not any way to turn trains at Pittsfield Station. All of the proposed service alternatives would terminate and begin at Pittsfield, so the consists would have to include two locomotives, one on each end of the train. Alternatively, a wye track could be constructed in the future near the Pittsfield Station to allow the trains to turn. Construction of this wye track would require coordination with multiple railroad entities including CSX and the Housatonic Railroad Corporation, and permitting through state and local regulatory agencies. A construction cost between \$2 million and \$5 million could be considered for planning purposes. This would include typical track construction, signalization if required, drainage, land acquisition, engineering, permitting, and contingency.



**APPENDIX C –
Berkshire Flyer Market Research Report developed by
students from the Massachusetts College of Liberal Arts**

BERKSHIRE FLYER MARKET RESEARCH REPORT

RESPECTFULLY SUBMITTED TO THE BERKSHIRE FLYER WORKING GROUP
DECEMBER 18, 2017

BY

The Students of MATH-444 Operations Research

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Contents

I. Background	4
A. <i>The Berkshire Flyer Working Group (BFWG)</i>	4
B. <i>The Berkshire Flyer Operations Research Group (BFOR)</i>	4
II. The Proposed Service: Routes and Trackage	5
III. Market Research	9
A. <i>Information from Attractions and Lodgings in Berkshire County</i>	10
B. <i>Berkshire Flyer Ridership Survey</i>	11
C. <i>Statistical Analysis of Survey Data</i>	15
D. <i>Berkshire County homeowners who live in New York City</i>	15
E. <i>Service Economy</i>	18
IV. Future Research	19
References	21
Appendix A: Attractions and Lodgings in Berkshire County	23
Appendix B: MCLA Flyer E-mail Sent to Attractions & Locations	29
Appendix C: E-mail correspondence with Attractions & Locations	30
Appendix D: Berkshire Flyer Ridership Survey	34
Appendix E: Berkshire Flyer Ridership Survey Results	39
Appendix F: Statistical Analysis of Data	50
Appendix G: Maps of Tax Bill Addresses for Individual Municipalities	51
Appendix H: Python Code for Generating Maps and Reports	64

List of Figures

Fig. 1 Empire Corridor South.....	6
Fig. 2 Track ownership of proposed routes for the Berkshire Flyer service.....	7
Fig. 3 CSX-owned subdivisions south of Castleton-on-Hudson.....	8
Fig. 4 Proposed site of new connection track for Route 2.....	9
Fig. 5 Berkshire Flyer Ridership Survey: Response to section 1 question 1.....	12
Fig. 6 Berkshire Flyer Ridership Survey: Response to section 1 question 2.....	12
Fig. 7 Berkshire Flyer Ridership Survey: Response to section 3 question 1.....	13
Fig. 8 Berkshire Flyer Ridership Survey: Response to section 3 question 5.....	14
Fig. 9 Berkshire Flyer Ridership Survey: Response to section 4 question 4.....	15
Fig. 10 NYC metro mailing addresses for Berkshire County homeowners from select cities/towns.....	16
Fig. 11 ZIP codes overlaid on Voronoi diagram for stations along proposed route.....	17
Fig. 12 BRTA bus routes in Berkshire County as of July, 2017.....	19

List of Tables

Table I: Summer attendance at representative sample of Berkshire county attractions/lodgings.....	10
Table II: Berkshire County cities/towns with highest number of property-owners in New York City.....	17
Table III: Numbers of tax bills mailed within 30 and 50 mile radii of six stations along proposed route.....	18
Table IV: Facebook users “who have expressed an interest in or like pages related to”....	20

I. Background

A. *The Berkshire Flyer Working Group (BFWG)*

The Berkshire Flyer Working Group was established to study seasonal passenger rail service between New York City and Pittsfield, Massachusetts. This ongoing effort was inspired by the successful CapeFlyer, a weekend service between Boston and Cape Cod that operates from Memorial Day to Labor Day. Operated jointly by the Cape Cod Regional Transit Authority (CCRTA), the Massachusetts Bay Transportation Authority (MBTA), and Massachusetts Department of Transportation (MassDOT), the CapeFlyer carried 13,663 passengers across 15 weeks of service in 2016, earning approximately \$230,000 in revenue that year [1]. Like the CapeFlyer, the proposed Berkshire Flyer service would be seasonal, running on weekends during the summer.

Legislation leading to the formation of the Berkshire Flyer Working Group (BFWG) was sponsored by Massachusetts state Senator Adam Hinds, D-Pittsfield, as part of the fiscal year 2018 (FY18) budget [2]. Regarding the proposed service, Hinds said in a statement that "transportation improvements are critical for the economic development of the region and the Commonwealth. NYC/Berkshire Rail would be an economic boon for our communities, cultural attractions, stores, restaurants and lodging."

In addition to Senator Hinds, the Working Group includes Astrid Glynn, Rail and Transit Administrator at MassDOT, Representative Tricia Farley-Bouvier, D-Pittsfield, Billy Keane of the Berkshire County Board of Realtors, Michael Kapnik, director Western Massachusetts Office of the Governor, Matthew Russett, community outreach coordinator for U.S. Rep. Richard Neal D-Springfield, Clete Kus, transportation program manager, Berkshire Regional Planning Commission, Elliot Sperling, transportation planner at MassDOT, Nathaniel Karns, executive director, Berkshire Regional Planning Commission, Francisca Heming, district 1 highway director at MassDOT, Lenox, Jonathan Butler, president and CEO, 1Berkshire, Eddie Sporn, Robin Road Consulting, Jay Green, Berkshire Scenic Railway, Robert Malnati, administrator, Berkshire Regional Transit Authority, Deanna Ruffer, director of community development, City of Pittsfield, and Alfred "A.J." Enchill, district aide to Senator Hinds.

Intended to attract tourism to Berkshire County from New York City, the Berkshire Flyer service may also help to address concerns about population decline in the Berkshires. According to Hinds, "When you look at our population in the Berkshires there's that 20 to 30 year-old gap and folks who might want to start a family here and take advantage of the cost of living and quality of living but wanting to maintain a connection to other economic center, in this case namely New York City."

B. *The Berkshire Flyer Operations Research Group (BFOR)*

The Berkshire Flyer Operations Research (BFOR) group is comprised of the eight undergraduate students enrolled in Dr. Erin Kiley's MATH-444 (Operations Research) course at the Massachusetts College of Liberal Arts. The BFOR group was created to fulfill the

requirements of a course project designed to assist the BFWG in carrying out an initial pilot study on the proposed Berkshire Flyer service.

The BFOR Group sought to provide quantitative support to the BFWG's objective, which, according to MassDOT representative Astrid Glynn, is "to find facts about potential ridership on a line that would use existing passenger rail track up New York state, then would cross into Massachusetts at West Stockbridge." [3] Details regarding the proposed service are discussed in greater depth in Section II.

The BFOR group conducted its research in three phases:

- (1) E-mailed lodging and attractions lists provided by the Berkshire Flyer Working Group; in addition, reviewed bus ridership (Berkshire Regional Transport Authority).
- (2) Created a survey to be disseminated by participating businesses (lodgings and attractions). The survey is intended to reach potential riders, and requested that the survey be posted on the social media accounts of various establishments in the Berkshires.
- (3) Analyzed the survey results, synthesized findings in a report submitted to the Berkshire Flyer Working Group.

The BFOR group has a personal investment in the establishment of the proposed service; at least one of its members lived and worked in New York City while regularly commuting to the Berkshires, as have many of their family and friends. They can personally attest to the appeal of more convenient rail service between New York City and Berkshire county for travelers coming from either location. Indeed, they're hopeful that future service will consider younger individuals who may want to settle in the Berkshires while maintaining economic ties with New York City.

II. The Proposed Service: Routes and Trackage

Two potential routes have been identified for the proposed Berkshire Flyer service. "Route 1" would go from Pittsfield to Albany-Rensselaer to New York City utilizing only existing track and Amtrak service. "Route 2" would go from Pittsfield to Castleton-on-Hudson (part of Schodack, NY) to New York City, bypassing Albany-Rensselaer and requiring 3,000 feet of new connection track as well as the use of 11 miles of CSX-owned track for which there is no existing Amtrak-CSX agreement. A third option involves increasing the frequency of service between Albany-Rensselaer and Pittsfield to align with existing service between New York Penn Station and Albany-Rensselaer.



Fig. 1 Empire Corridor South [4]

Both proposed routes for new service would utilize at least part of the Empire Corridor South (Fig. 1), a 142-mile line which runs from New York Penn Station through the Hudson Valley to approximately one mile north of Albany-Rensselaer station. This includes Amtrak's Empire Connection, a 10.8-mile portion of the West Side Line from Penn Station to the Spuyten-Duyvil bridge (connecting Manhattan to the Bronx neighborhood of Spuyten-Duyvil); here, track joins the Metro-North Railroad Hudson Line (owned and operated by the Metropolitan Transportation Authority) which runs from Spuyten-Duyvil to Poughkeepsie, NY.



Fig. 2 Track ownership of proposed routes for the Berkshire Flyer service [5]

The southern portion of the Hudson Line is a section from Spuyten-Duyvil to Croton-Harmon (21.4 miles), while the double-tracked northern portion runs from Croton-Harmon to Poughkeepsie (40.3 miles). Maximum speeds along the northern portion of the Metro-North Hudson Line range from 60-90 mph (60-70 mph due to curvature just north of Croton-Harmon, and up to 90 mph beyond the Hudson Highlands).

The Hudson Subdivision, a 38.6-mile line owned by CSX Transportation and leased by Amtrak, runs from Poughkeepsie to Albany-Rensselaer. The relatively straight section allows for speeds of up to 110 mph, the highest maximum speeds on the Empire Corridor South.

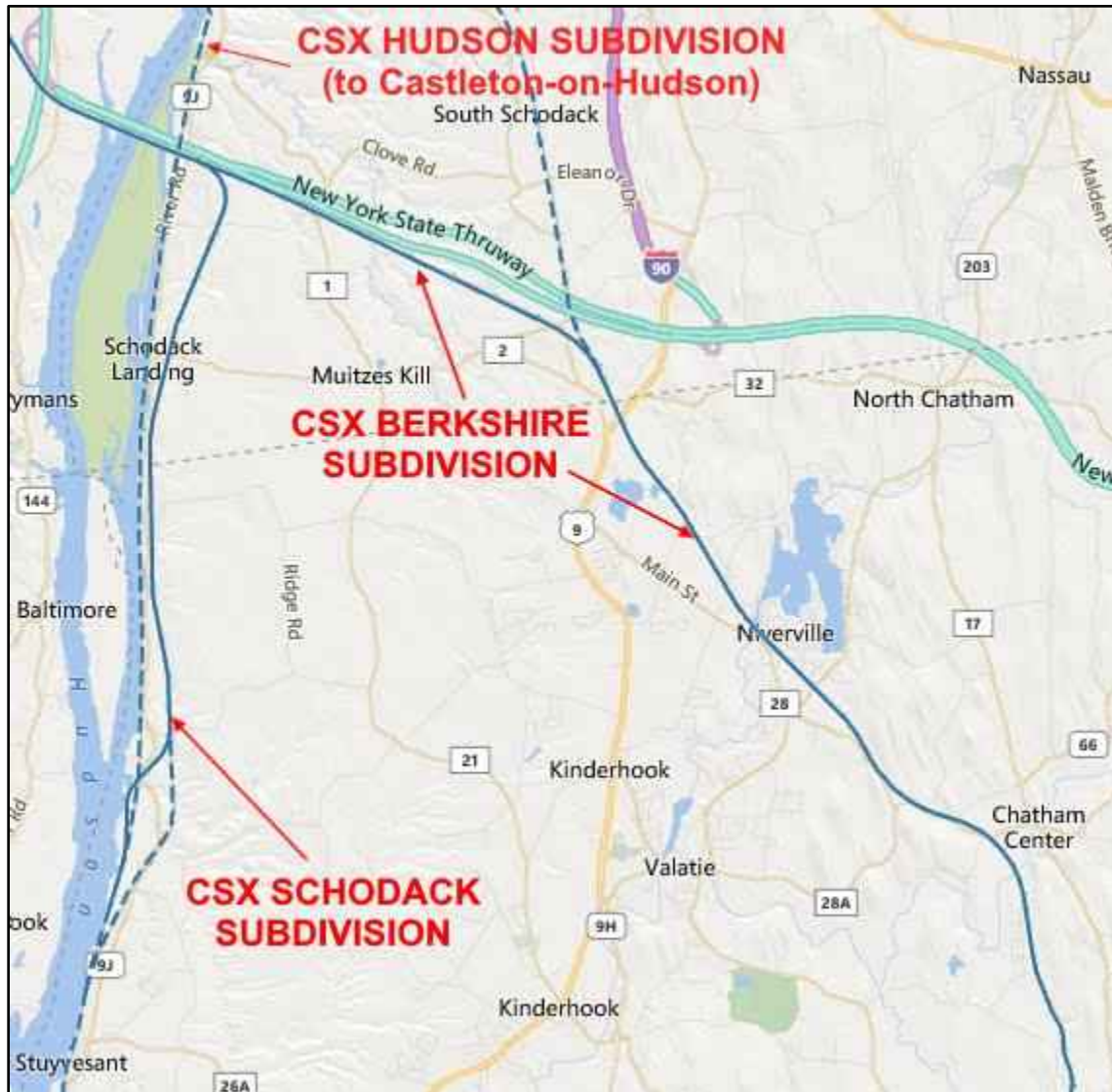


Fig. 3 CSX-owned subdivisions south of Castleton-on-Hudson [6]

Route 2 would involve the use of CSX's Schodack Subdivision (Fig. 3), a line which branches off of the Hudson Division at Suyvesant. 3,000 feet of new connection track would join this with CSX's Berkshire Subdivision just south of Castleton-on-Hudson, where New York State's Route 9J and NY 912M (the New York State Thruway's Berkshire Connector) meet. As mentioned above, a total of 11 miles of track would be utilized for which there is currently no Amtrak-CSX agreement.



Fig. 4 Proposed site of new connection track for Route 2 [7]

III. Market Research

Our class group (BFOR) solicited information from attractions and lodgings in Berkshire County, lists of which were provided by the BFWG. We obtained e-mail addresses and telephone numbers for these attractions and lodgings, and sent an e-mail to each requesting data on the proportion of their visitors/customers/guests who were from the New York City metropolitan area (see Appendices A-B).

We created a Google account, "*MCLA Flyer*," from which attractions/locations were e-mailed. A Google survey was developed that we hoped would be disseminated to any member lists that be might be kept by these attractions/lodgings, and/or shared on social media accounts. Each e-mail included a request for relevant information and a link to the survey (see Appendices B-D).

A total of 70 attractions, 6 chambers of commerce, and 173 lodgings were contacted. Of these, 20 attractions, 2 chambers of commerce, and 10 lodgings responded. 1Berkshire, Berkshire Theatre Group, Mass MoCA, and the town of North Adams agreed to post a link to our survey on their respective social media accounts (e.g. Facebook), yielding approximately 450 responses.

A. Information from Attractions and Lodgings in Berkshire County

Data was obtained regarding seasonal attendance from five representative attractions/lodgings in Berkshire County. These businesses responded to our e-mail by providing numbers of guests/customers/visitors during the summer season, as well as the percentage of these visitors from the New York City metropolitan area (see Table I). E-mail correspondences with these businesses are available in Appendix C.

TABLE I
Seasonal attendance at representative sample of Berkshire county attractions/lodgings

Attraction/Lodging	Seasonal attendance	Percentage of visitors from NYC Metro Area
Berkshire Scenic Railway Museum	10,121 ^a	5.7%
Gateways Inn & Restaurant	1,500 ^{b,d}	40%
W.E.B. Du Bois National Historic Site	1,80 ^{b,d}	10%
Canterbury Farm B&B	280	75%
Berkshire Theatre Group	7,500 ^{b,d}	16%
Frelinghuysen Morris House & Studio	2,500 ^b	50%

^aMay 2016-December 2017

^bApproximate values.

^cJune 15-September 15, 2017.

^dJuly-September 2017.

^eJune-August 2017.

Berkshire Scenic Railway Museum is a non-profit organization with a mission “to preserve the history of railroading, particularly in the Berkshire Hills of Western Massachusetts.” [8] Featuring a number of vintage locomotives and passenger cars, BSRM offers educational exhibits, restorations, and service on traditional and historic train rides.

The Gateways Inn & Restaurant is a bed and breakfast located at the Procter mansion at 51 Walker Street in downtown Lenox. It has been featured in Gladys Magazine, called “the must-stay place” in Lenox by Luxury Report Magazine, named one of the “Best Places to Stay in Massachusetts” by The Hotel Guru, and is the winner of a 2014 “Best of New England - Editor’s Choice” award by Yankee Magazine [9]. From June 15th to September 15th, the Gateways Inn had approximately 1,500 guests, of which an estimated 40% (600) were from New York City; this becomes 75% (1,125) if New Jersey and Connecticut are included.

The W.E.B. Du Bois National Historic Site, at 612 South Egremont Road in Great Barrington, hosts the boyhood homesite of the African-American intellectual and civil-rights activist W.E.B. Du Bois. Listed on the National Register of Historic Places, it is currently operated an all-volunteer committee. The five-acre site includes guided tours along an interpretive trail [10]. During tour season, from July to September, the site receives approximately 60 visitors per month; 10% of visitors stated that they were from New York City.

Canterbury Farm is a nordic center and bed & breakfast located at 1986 Fred Snow Road in Becket. Open to the public throughout the year, Canterbury Farm offers seasonal outdoor activities (from skiing and snowshoeing to hiking, swimming, and kayaking) as well as lodging and musical events. The historic site, built in 1780 beside a 50-acre lake [11], hosted 280 guests during the summer of 2017; 75% (210) were from New York City. Guests stayed at the farm two days on average.

Berkshire Theatre Group is a non-profit organization that came about when when Berkshire Theatre Festival merged with The Colonial Theatre, two of Berkshire County's oldest performing arts venues. Both institutions have long and storied histories, each the site of hundreds of stage productions [12]. Berkshire Theatre Group now operates the Fitzpatrick Main Stage (83 East Main Street in Stockbridge), the Unicorn Theatre (6 East Street, Stockbridge)) and The Colonial Theatre (111 South Street, Pittsfield). From June to August of 2017, the Berkshire Theatre Group saw approximately 7,500 ticket orders; of these, 1,200 (16%) were made by people from the New York City metro area.

Frelinghuysen Morris House & Studio is the home of American abstract artists George L.K. Morris and Suzy Frelinghuysen. The 46-acre estate at 92 Hawthorne Street in Lenox allows visitors to view the couple's artwork and living quarters firsthand [13]. Frelinghuysen Morris House & Studio is open from late June to early October, and receives approximately 2,500 visitors every season; roughly 50% are from the New York metro area.

B. Berkshire Flyer Ridership Survey

The Berkshire Flyer Ridership Survey was created using Google forms (see Appendix D for the full survey). As mentioned in Section II, our class (BFOR) emailed the survey link (<https://goo.gl/forms/isHQRkn3NMJorDL43>) to 70 attractions, 6 chambers of commerce, and 173 lodgings (all but the chambers of commerce were obtained from a list provided by the working group; see Appendix A). We asked the establishments if they would be willing to share the survey with their customers/members/visitors via any existing mailing lists or social media accounts. Social media solicitation attracted the majority of the responses.

It's important to acknowledge that our results do not represent a random sample of potential passengers; respondents were mostly those who follow Berkshire County-based businesses on social media (and therefore do not represent the target demographic, i.e. New Yorkers), and respondents were necessarily restricted to those inclined to participate in online surveys regarding Berkshire County rail travel. Nevertheless, as of December 17, 2017, there have been over 450 responses. Full response data was automatically compiled into a spreadsheet where it is ordered by submission date (see Appendix E).

The survey is composed of twelve questions divided into four sections; four demographic questions were optional. Section 1 asked respondents, "Are you in favor of expanding rail service between the Berkshires and NYC?" and "Would you use this service if it existed?" If respondents answered the latter by selecting either "I would not use this service but I know

people that would” or “I would not use this service and I do not know anyone that would,” the survey’s branching behavior brought them to the last section (section 4), which asks how much they currently pay for transportation to the Berkshires as well as (optionally) the respondent’s race and income (see Appendix D).

Are you in favor of expanding rail service between the Berkshires and NYC?

450 responses

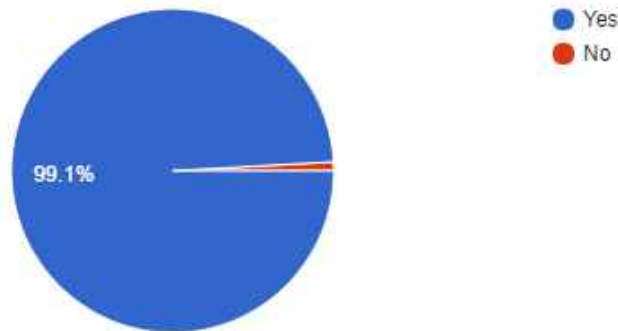


Fig. 5 Berkshire Flyer Ridership Survey: Response to section 1 question 1 as of Dec. 17, 2017

Respondents were then asked if they would use the service or if they knew friends/family that would. The majority of respondents indicated that they would either personally use the service or knew someone who would.

Would you use this service if it existed?

450 responses

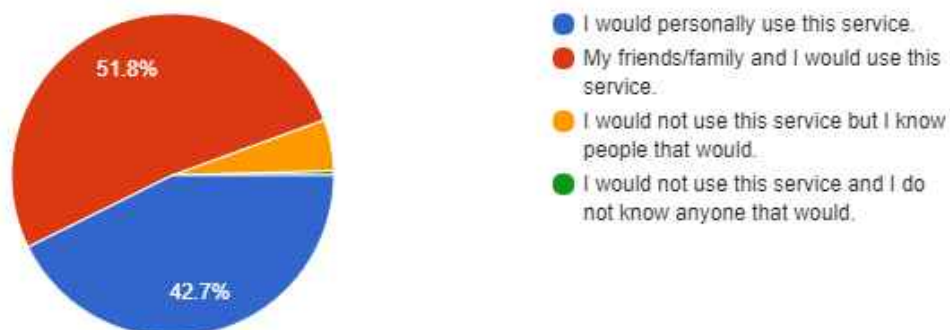


Fig. 6 Berkshire Flyer Ridership Survey: Response to section 1 question 2 as of Dec. 17, 2017
(If respondents indicated that they would not use this service, sections 2 and 3 were skipped)

The survey asked participants about the frequency and duration of their visits in the Berkshires. The majority of respondents indicated that they would use the service on a monthly basis; however, another third of the respondents indicated that they would use the service yearly.

How often would you use this service?

419 responses

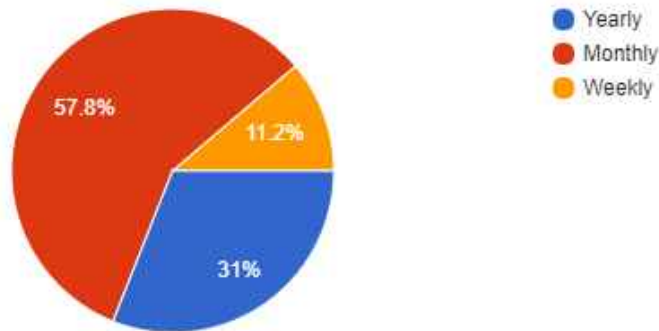


Fig. 7 Berkshire Flyer Ridership Survey: Response to section 3 question 1 as of Dec. 17, 2017

The typical time spent visiting the Berkshires ranged from a few days to more than one week. It is worth mentioning that a large group of respondents (approximately 40%) already lived in the Berkshires. The following were the three most popular responses:

- A few days (31.3%)
- More than a week (18.4%)
- A week (6.9%)

Participants were asked the reason they would be visiting the Berkshires, and provided some of the the following responses:

- Cultural attractions (30.5%)
- Visiting friends and family (25.3%)
- Hiking/camping/fishing (3.3%)
- Skiing/snowboarding (1.2%)

Most other respondents indicated that they already lived in the Berkshires.

The participants were also asked what their final destination would be when coming to the Berkshires. While responses varied widely, the top destinations mentioned were the following cities/towns:

- Pittsfield (22.4%)
- North Adams (15.5%)
- Lenox (13.8%)
- Williamstown (9.5%)
- Great Barrington (9.1%)
- Lee (2.9%)

Our class (BFOR) was also interested in obtaining information on the maximum amount respondents would be willing to pay over current rates in order to bypass Albany-Rensselaer (Route 2). When asked how much more the respondent would be willing to pay to cut twenty minutes off the current travel time to NYC, responses ranged from \$0-\$200, with some respondents noting that they were unsure or gave answers such as “Whatever it took.” The upper range of responses were large enough to suggest that respondents may have entered the total prices they were willing to spend; our group had intended the question to refer only to additional money spent in order to save twenty minutes of travel time. A lack of clarity in the phrasing of the question may have led to the responses.

In an effort to minimize inappropriate skewing of data, we decided that \$60 would be the upper maximum for a reasonable response. Responses that did not fall between the range of \$0-\$60 were treated as if the response was left blank. With this in mind, the average amount of money a respondent would be willing to pay on top of the cost of travel in order to save twenty minutes per trip is \$23.32 (see Appendix E).

What would be your seating preference aboard the train?

419 responses

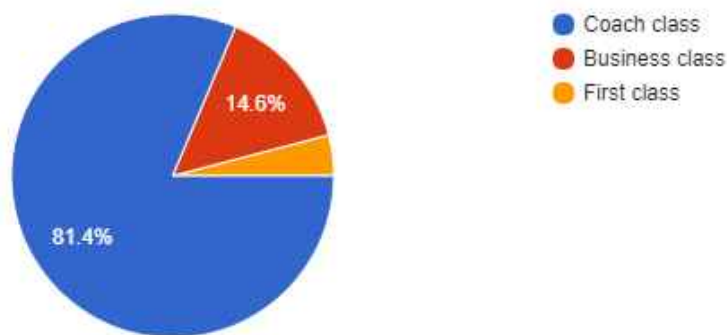


Fig. 8 Berkshire Flyer Ridership Survey: Response to section 3 question 5 as of Dec. 17, 2017

Finally, BFOR asked respondents about their total household income. We obtained the following responses:

(OPTIONAL) What is your household's total income?

381 responses

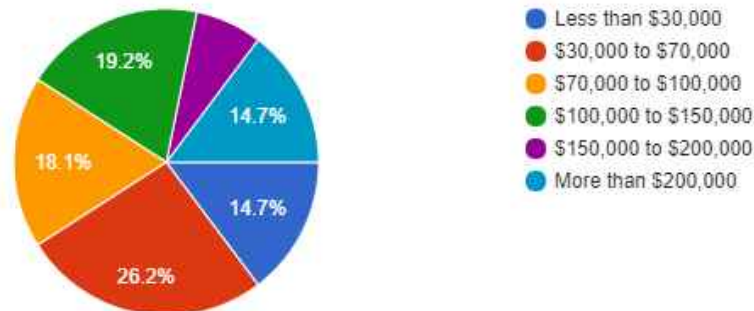


Fig. 9 Berkshire Flyer Ridership Survey: Response to section 4 question 4 as of Dec. 17, 2017

C. Statistical Analysis of Survey Data

By analyzing the data collected from survey, we identified unreliable responses by removing any that had the following: words where numerical values were needed, incomplete or only half-answered responses, and any duplicate responses. At the time of the statistical analysis, there were approximately 200 survey responses, of which only about 120 were useful.

Our analysis showed that only household total income has a statistically significant impact on whether a respondent would ride alone or with family (household income was found to account for more than 62.4% of original data).

As the total household income increases, fewer people would choose to travel by themselves when using the Berkshire Flyer service. For those whose household income is between \$70,000 to \$100,000, 54% would choose to go on their own while 48% among those who made \$100,000 to \$150,000 would do so, and 43% of those who made \$150,000 to \$200,000, and 38% of those made greater than \$200,000. For more details of the statistical analysis, see Appendix F.

D. Berkshire County homeowners who live in New York City

In order to better gauge potential ridership for the Berkshire Flyer service, BFOR sought to determine the number of Berkshire County homeowners whose property tax bills were sent to addresses in the New York metropolitan area. This population consists of individuals who own properties in the Berkshires while living in New York City; this includes those who own second homes, seasonal residences, rental properties, etc. Those who own second homes in the Berkshires presumably maintain reliable patterns of travel from New York City, and may represent an untapped market for future rail service.

Information was obtained from the Massachusetts Bureau of Geographic Information (MassGIS) ArcGIS Online Web mapping platform [14]. Standardized parcels data were downloaded for every town in Berkshire County north of Great Barrington (see Appendix G). Owner addresses with zip codes between 10001 and 11980 were considered to be within the New York metropolitan area. Esri's ArcGIS was used to plot addresses for nine Berkshire towns

with the greatest numbers of tax bills mailed to New York addresses; Alford, Becket, Hancock, Lee, Lenox, Pittsfield, Stockbridge, Williamstown, and West Stockbridge (Fig. 10 and Table II).

In Figure 11, the broader Hudson Valley area is shown, and six stations along the proposed route have been used to generate a Voronoi diagram, which shows colored regions where each point is closest, geographically, to the station within that region. The six stations used to generate the Voronoi cells were New York Penn Station (NYP), Yonkers (YNY), Croton-on-Hudson (CRT), Poughkeepsie (POU), Rhinecliff (RHI), and Hudson (HUD). Dots are shown on the map for ZIP codes that are within 30 miles of each station. Geospatial coordinates of ZIP codes was done using the `zipcodes` package for the python programming language [15], and distance to each station was computed by the script in Appendix H.

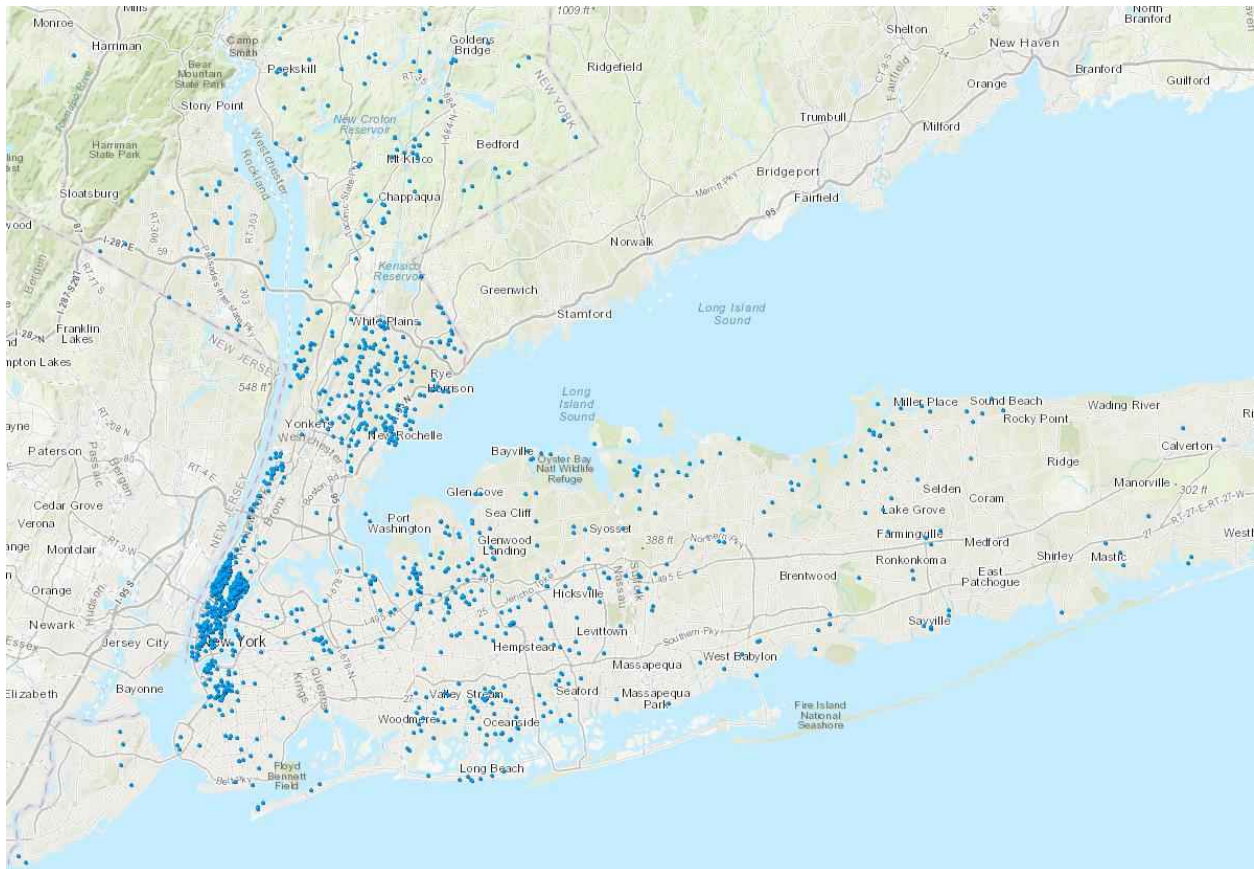


Fig. 10 NYC metro mailing addresses for Berkshire County homeowners in cities/towns listed in Table II [16]

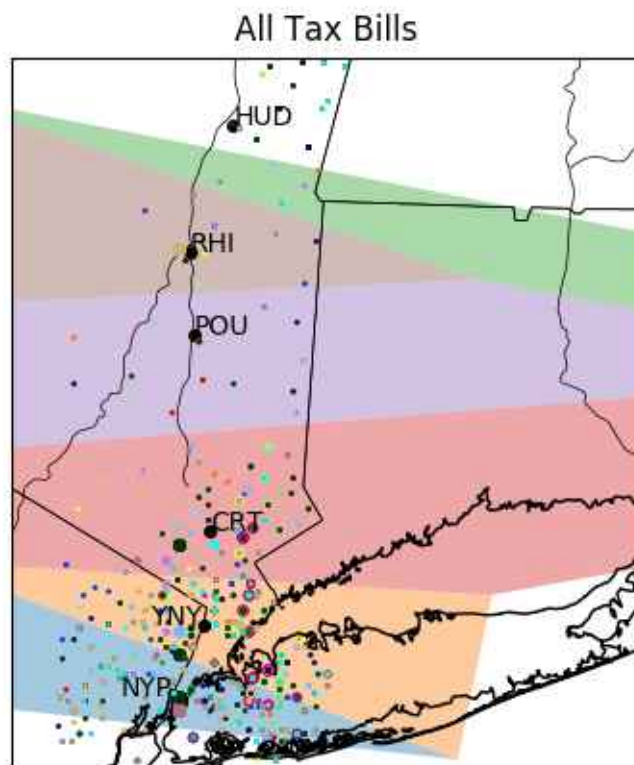


Fig. 11 ZIP codes overlaid on Voronoi diagram of stations along proposed route.

TABLE II
Berkshire County cities/towns with highest number of property-owners in NYC

City/Town	Tax bills	Tax bills mailed to NYC metro zip codes^a
Alford	523	92
Becket	4082	294
Hancock	960	186
Lee	3059	171
Lenox	2879	211
Pittsfield	18694	166
Stockbridge	1959	271
Williamstown	2761	73
West Stockbridge	1120	114

^aZip codes between 10001 to 11980 were considered to be within the New York metropolitan area.

^bNew York Penn Station

TABLE III
Numbers of tax bills mailed within 30 and 50 mile radii of six stations along proposed route

Report automatically generated by Python on the basis of MassGIS data.																
City/Town	Total Tax Bills	NY/NJ	30 mile	50 mile	NYP30	NYP50	NYN30	NYN50	CRT30	CRT50	POU30	POU50	RHI30	RHI50	HUD30	HUD50
Adams	3638	21	15	17	6	6	2	2	3	3	0	0	0	1	4	5
Alford	523	124	112	121	77	83	15	15	12	15	1	1	0	0	7	7
Becket	4082	377	317	345	145	154	88	88	64	82	2	2	2	2	16	17
Cheshire	1733	25	16	21	10	10	2	2	2	5	0	0	0	0	2	4
CLARKSBURG	845	11	6	10	2	2	3	3	1	1	0	0	0	1	0	3
DALTON	2772	24	19	22	11	13	1	1	2	3	2	2	0	0	3	3
Egremont	1252	259	241	254	169	171	36	36	27	38	0	0	3	3	6	6
Florida	693	26	13	17	8	8	2	2	1	4	0	0	0	0	2	3
Great Barrington	4136	329	301	314	197	205	40	40	39	44	3	3	3	3	19	19
HANCOCK	960	280	224	248	77	81	45	45	59	79	2	2	1	1	40	40
Hinsdale	1528	88	81	84	17	17	20	20	15	18	2	2	2	2	25	25
LANESBORO	2054	81	71	74	16	18	23	23	17	18	1	1	1	1	13	13
Lee	3059	246	219	236	124	134	46	46	32	39	1	1	1	1	15	15
LENOX	2879	280	255	266	135	143	57	57	51	53	0	0	2	2	10	11
New Ashford	208	10	6	9	2	3	3	3	1	2	0	0	0	0	0	1
NORTH ADAMS	5393	72	51	62	30	35	5	5	3	3	1	1	2	2	10	16
Peru	792	33	28	32	10	11	4	4	4	7	0	0	2	2	8	8
PITTSFIELD	18694	292	252	268	111	117	43	43	45	51	1	1	2	3	50	53
Richmond	1260	109	100	103	54	57	9	9	19	19	0	0	0	0	18	18
SAVOY	572	20	17	18	7	7	2	2	4	5	0	0	0	0	4	4
Sheffield	2804	221	208	215	139	143	20	20	32	35	0	0	1	1	16	16
STOCKBRIDGE	1959	365	342	357	222	233	50	50	58	62	0	0	2	2	10	10
Washington	603	35	29	31	12	13	4	4	12	13	0	0	0	0	1	1
West Stockbridge	1120	143	132	139	86	90	24	24	13	16	0	0	0	0	9	9
WILLIAMSTOWN	2761	101	94	96	57	58	9	9	19	19	1	1	0	0	8	9
WINDSOR	901	26	22	23	14	14	3	3	3	4	0	0	0	0	2	2
Totals	67221	3598	3171	3382	1738	1826	556	556	538	638	17	17	24	27	298	318

E. Service Economy

Once New Yorkers reach the Pittsfield Intermodal Station, there will be a demand for transportation services to get them to their final destination. These include: public bus service provided by the Berkshire Regional Transit Authority (BRTA), taxi service (e.g. Rainbow Taxi), as well as Uber, Lyft, Zipcar and Turo. Use of these services represents another economic benefit of bringing New Yorkers to Berkshire County.

BRTA provides fixed route bus service across Berkshire County, from Williamstown to Great Barrington, Monday through Saturday. A map of all BRTA bus routes (as of July 2017) is provided in Fig. 11. The lack of Sunday bus service as well route limitations may need to be addressed in order to better accommodate passengers disembarking from a potential Berkshire Flyer service in the near future.



Fig. 12 BRTA bus routes in Berkshire County as of July, 2017 [17]

IV. Future Research

Our group (BFOR) realized that businesses would be more willing to share the survey on social media only after it became clear that no business was willing to share our survey via direct, mass e-mail to their customers/members. It's also worth considering that relatively few businesses responded to our e-mails, despite our attempts to follow up with all attractions and lodgings. This may be due in part to the timing of the project (mostly undertaken during the Thanksgiving and winter holiday season).

Although several organizations based in Berkshire County shared our survey on social media, responses were mostly restricted to Berkshire residents. In order to disseminate our survey to potential ridership in the New York metropolitan area, we explored the option of

targeted advertising on Facebook. To this end, we created a Facebook account, “MCLA Flyer.” We determined that advertisements on Facebook can be targeted to users based on their interests (e.g. “Berkshires,” “Tanglewood,” etc). Our preliminary research revealed relevant numbers of users and their respective interests (see Table IV).

It’s likely that many New Yorkers who already travel to locations such as upstate New York for recreation would also visit the Berkshires if a convenient public transit option were available. Thus, it’s important to identify individuals in this untapped market. Using Facebook’s targeted advertising to reach New York City users who have expressed interests in, e.g., “camping,” “train travel,” “Amtrak vacations,” etc., remains an unexplored opportunity.

TABLE IV
Facebook users “who have expressed an interest in or like pages related to”

Interest	Number of Facebook users
“Lenox, Massachusetts”	883,980
“Tanglewood”	295,310
“Berkshire County, Massachusetts”	186,510
“Jacob’s Pillow Dance”	129,410
“Pittsfield, Massachusetts”	113,110
“The Berkshires”	90,610
“Massachusetts Museum of Contemporary Art”	51,520
“Norman Rockwell Museum”	46,980
“Massachusetts Audubon Society”	46,460
“Clark Art Institute”	17,920
“Tanglewood Music Festival”	15,910

Alternative social media platforms on which targeted survey advertising could take place include Twitter, Instagram, Pinterest, Tumblr, Google+, and LinkedIn. These options have yet to be explored. Nevertheless, while Facebook tailors the reach of an advertising campaign to the given budget size, it’s clear that such advertising will require at least some financial investment in order to reach potential ridership in New York City.

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Appendix A: Attractions and Lodgings in Berkshire County

Attractions:

<https://docs.google.com/spreadsheets/d/1m97qPKQF7rbgYbEkHzOmQL7GB7Vlr94b9gAf-4oiujg/edit?usp=sharing>

	A	B	C	D	E	F	G	H
1	NAME		ADDRESS	COMMUNITY	STATE	ZIPCODE	E-MAIL	TELEPHONE
2	Antique Alley Rt 7	102	South Main Street	Sheffield	MA	01257	Toni Tucker: ttucker@berkshiresstyle.com	
3	Arrowhead Museum	780	Holmes Road	Pittsfield	MA	01201	melville@berkshirehistory.org	(413) 442-1793
4								Will Garrison, Exec
5								(413) 442-1793 x1
6	Barrington Stage Company	122	North Street	Pittsfield	MA	01201	info@barringtonstageco.org	Administrative off
7	Barrington Stage Company	30	Union Street	Pittsfield	MA	01201		
8	Becket Arts Center	7	Brooker Hill Road	Becket	MA	01223	office@becketartscenter.org	413-623-6635 or 4
9	Berkshire Art Gallery	80	Railroad Street	Great Barrington	MA	01230	John Wood: jhwberkart@hotmail.c	413.528.2690
10	Berkshire Art Museum	159	East Main Street	North Adams	MA	01247	berkshireartmuseum@gmail.com	
11	Berkshire Arts Center of Hilltowns	12	Brooker Hill Road	Becket	MA	01223		
12	Berkshire Bach Society	244	Main Street	Great Barrington	MA	01238	info@berkshirebach.org	413 528-9555
13	Berkshire Botanical Garden	5	West Stockbridge Road	Stockbridge	MA	01262	info@berkshirebotanical.org	413.298.3926
14	Berkshire Carousel, Inc.	50	Center Street	Pittsfield	MA	01201	maria@berkshirecarousel.com	413-499-0457
15	Berkshire Choral International	245	North Undermountain Road	Sheffield	MA	01257	info@berkshirechoral.org	413.229.8526
16	Berkshire Lyric Theatre, Inc.	175	Wendell Avenue	Pittsfield	MA	01201	berkshirelyric@gmail.com	413-499-0258
17	Berkshire Museum	39	South Street	Pittsfield	MA	01201	info@berkshiremuseum.org	413-443-7171
18	Berkshire Opera Festival	352	Main Street, Suite 211	Great Barrington	MA	01230	info@berkshireoperafestival.org	413.213.6622
19	Berkshire Scenic Railway Museum	10	Willow Creek Road	Lenox	MA	01240	http://www.berkshirescenicrailroad	(413) 637-2210
20	Berkshire Theatre Festival	6	East Street	Stockbridge	MA	01262	info@berkshiretheatre.org	(413) 997-4444
21	Berkshire Theatre Group	111	South Street	Pittsfield	MA	01201		
22	Bousquet Ski Resort	101	Dan Fox Drive	Pittsfield	MA	01201	info@bousquets.com	(413)442-8316
23	Boston Univ Tanglewood Institute	45	West St	Lenox	MA	01240	tanglewd@bu.edu	617.353.3386
24	Butternut Ski Area (Ski Butternut)	380	State Road	Great Barrington	MA	01230	office@skibutternut.com	413.528.2000 x11
25	Catamount Ski Area	17	Nicholson Road	S. Egremont	MA	01258	info@catamountski.com	518-325-3155
26	Catamount Ski Area	78	Catamount Road	Hinsdale	NY	12529	info@catamountski.com	518-325-3155
27	Canterbury Farm	1986	Fred Snow Road	Becket	MA	01223	canterburyfarm@verizon.net	413-623-0100
28	Canyon Ranch	165	Kamble Street	Lenox	MA	01240		413-637-4400
29	Center for Theatre and Dance	1000	Main Street	Williamstown	MA	01267	62center@williams.edu	413.597.2425
30	Charles Flint Fine Arts & Antiques Gallery	52	Housatonic Street	Lenox	MA	01240	cfint@charlesflint.com	413-637-1634
31	Chesterwood	4	Williamsville Road	Stockbridge	MA	01262	chesterwood@savingplaces.org	413.298.3579
32	Clark Art Institute	225	South Street	Williamstown	MA	01267	http://www.clarkart.edu/About/Conta	413 458 2303
33	Crane Museum of Papermaking	30	South Street	Dalton	MA	01226	mediarelations@crane.com	(917) 341-2916
34	Cranwell Resort & Golf	55	Lee Road	Lenox	MA	01240	info@Cranwell.com	(413) 637-1364
35	DeVries Fine Art, Inc.	62	Church Street	Lenox	MA	01240	info@andrewdevries.com	413-238-7755
36	Eastover Retreat	430	East Street	Lenox	MA	01240	events@eastover.com	1-866-2645139
37	Eclipse Mill Artist Lofts	243	Union Street	North Adams	MA	01247	site broken this is what I found: figur8ively@aol.com	
38	Frelinghuysen Morris House & Studio	92	Hawthorne Street	Lenox	MA	01240	info@frelinghuysen.org	
39	Furnace Brook Winery at Hilltop Orchards	508	Canaan Road	Richmond	MA	01254	mashman@berkshire.rr.com	800-833-6274
40	Guthrie Center	2	Van Deusenville Road	Great Barrington	MA	01230	https://guthriecenter.org/contact/	(413) 528-1955
41	Hancock Shaker Village Inc.	1843	West Housatonic Street	Pittsfield	MA	01201	info@hancockshakervillage.org	413.443.0188
42	Hilltop Orchard, Winery, skiing	508	Canaan Road	Richmond	MA	01254	mashman@berkshire.rr.com	800-833-6274
43	Hoosac Valley Scenic Rail	98	Crowley Avenue	North Adams	MA	01247	http://hoosacvalleytrainride.com/contact	(413) 637-2210
44	Ioka Valley Farm	3475	MA 43	Williamstown	MA	01267	info@iokavalleyfarm.com	(413) 738-5915
45	Jacob's Pillow Dance Festival	358	George Carter Road	Becket	MA	01223	info@jacobsillow.org	413.243.9919
46	Jiminy Peak Ski Area	37	Corey Road	Hancock	MA	01237		413-738-5500
47	Kripalu Center for Yoga & Health	57	Interlaken Road	Stockbridge	MA	01262	guestservices@kripalu.org	413.448.323
48	Lee Outlets	17	Premium Outlet Blvd	Lee	MA	01238	http://www.premiumoutlets.com/out	1 (317) 636-1600
49	Mahaiwe Performing Arts Center	14	Castle Street	Great Barrington	MA	01230	info@mahaiwe.org	413-644-9040
50	Mass Museum of Contemporary Arts	1040	Mass MoCA Way	North Adams	MA	01247	info@massmoca.org	413.662.2111
51	Mission House, Gardens & Museum	19	Main Street	Stockbridge	MA	01262	westregion@thetrustees.org	
52	Mount Greylock State Reservation	30	Rockwell Road	Lanesborough	MA	01237	mount.greylock@state.ma.us	(413) 499-4262
53	Naumkeag House & Gardens	5	Prospect Hill Road	Stockbridge	MA	01262		
54	Noel Field Athletic Complex	310	State Street	North Adams	MA	01247	steplecats@gmail.com	
55	Norman Rockwell Museum	9	Glendale Road	Stockbridge	MA	01262		413-298-4100
56	North Adams Museum of History and Science	115	Furnace Street	North Adams	MA	01247	nahs@bcn.net	(413) 664-4700
57	Notchview	83	Old Route 9	Windsor	MA	01262	westregion@thetrustees.org	413.298.3239

58	Ramblewild, LLC	110	Brodie Mountain Road	Lanesborough	MA	01247		1.844.472.6253
59	Sanford Smith Fine Art	13	Railroad Street	Great Barrington	MA	01230		
60	Schantz Galleries Contemporary Art	3	Elm Street	Lanesborough	MA	01262	webinquiry@schantzgalleries.com	413-298-3044
61	Shakespeare & Company	70	Kemble Street	Lenox	MA	01237		(413) 637-1199
62	Shrine of Divine Mercy	2	Prospect Hill Road	Stockbridge	MA	01230		
63	South Mountain Concerts	730	South Street	Pittsfield	MA	01262	info@HousatonicHeritage.org	
64	Susan B. Anthony Birthplace Museum	67	East Road	Adams	MA	01201	info@susanbathonybirthplace.org	413.743.7121
65	Tanglewood	297	West Street	Lenox	MA	01220	customerservice@bso.org	(413) 637-5180
66	The Ashley House	117	Cooper Hill Road	Sheffield	MA	01240	westregion@thetrustees.org	413-774-5581
67	The Colonial Theatre	111	South Street	Pittsfield	MA	01222	email@thecolonial.org	603-357-1233
68	The Mount, Edith Wharton's Home	2	Plunkett Street	Lenox	MA	01201	info@edithwharton.org	(413) 551-5111
69	Topia Arts Center	27	Park Street	Adams	MA	01240	www.topiaarts.org	(413) 743-9600
70	Ventfort Hall Mansion & Gilded Age Museum	104	Walker Street	Lenox	MA	01220	info@gildedage.org	413-637-3206
71	W.E.B. Du Bois National Historic Site	612	South Egremont Road	Great Barrington	MA	01240	info@DuBoisNHS.org	413-717-6259
72	Williams College Museum of Art	15	Lawrence Hall Drive, Ste. 2	Williamstown	MA	01267	wcma.williams.edu	(413) 597-2429
73	Williamstown Theatre Festival	1000	Main Street	Williamstown	MA	01267	wtinfo@wtfestival.org	413.458.3200
74								
75	Local Chambers of Commerce							
76	Downtown Pittsfield Inc.	33	Dunham Mall, Suite 101	Pittsfield	MA	01201		413-443-6501
77	1Berkshire	66	Allen Street	Pittsfield	MA	01201	marketing@1berkshire.com	413.499.1600
78	Lenox Chamber of Commerce	4	Housatonic Street	Lenox	MA	01240	info@lenox.org	(413) 637-3646
79	Williamstown Chamber of Commerce	7	Denison Park Drive	Williamstown	MA	01276	info@williamstownchamber.com	413 458 9077
80	North Adams Chamber of Commerce	10	Main Street	North Adams	MA	10247	tourism@northadams-ma.gov	413-664-6180
81	Southern Berkshire Chamber of Commerce	40	Railroad St	Great Barrington	MA	01230	office.sberkchamber@gmail.com	(413) 528-4284

Lodgings:

<https://docs.google.com/spreadsheets/d/1xhO-mogmgAQL6rOEv2oJ9tCZpBaSpiBZls1CO-Nhws/edit?usp=sharing>

	A	B	C	D	E	F	G	H
1	NAME	ADDRESS		COMMUNITY	STATE	ZIPCODE	Email	Phone
2	1862 Seasons on Main - Bed & Breakfast	47	Main St	Stockbridge	MA	01262	info@seasonsonmain.com	(413) 298-5419
3	1896 House Inn	910	Cold Spring Rd -	Williamstown	MA	01267	celebrate@1896house.com	413-458-1896
4	1896 Motel Brookside/Pondside	910	Cold Spring Rd	Williamstown	MA	01267	celebrate@1896house.com	413-458-1896
5	1896 Motels		Cold Spring Rd	Williamstown	MA	01267	celebrate@1896house.com	413-458-1896
6	1 - A Lenox Bed & Breakfast	31	Delafield Drive	Lenox	MA	01240	alenoxbedandbreakfast@yahoo.com	(413)637-4759
7	31 Stockbridge Road	31	Stockbridge Road	West Stockbridge	MA	01266	31StockbridgeRoad@gmail.com	
8	33 Main	33	Main St	Lenox	MA	01240	inkeeper@thirtythreemain.com	413 400 3333
9	America's Best Value Inn	980	Pleasant St	Lee	MA	01238		(413) 243-050
10	An English Hideaway Inn	325	North Plain Rd	Housatonic	MA	01236		
11	Apple Tree Inn & Restaurant	10	Richmond Mountain Rd	Lenox	MA	01240	appletreeinn@roadrunner.com	
12	Applegate Inn	279	W Park St	Lee	MA	01238	info@applegateinn.com	
13	Arbor Rose Bed & Breakfast	8	Yale Hill Rd	Stockbridge	MA	01262	inkeeper@arborrose.com	
14	Ashley Inn Bed & Breakfast	182	W Park St	Lee	MA	01238		
15	Aunt M's Bed & Breakfast	60	Laurel St	Lee	MA	01238		
16	Bascom Lodge	3	Summit Rd	Adams	MA	01220	MAIL@BASCOMLODGE.NET	
17	Becket Motel	29	Chester Rd	Becket	MA	01223		(413) 623-8888
18	Bed & Breakfast in Berkshires	1666	Dublin Rd	Richmond	MA	01254		1-888-273-7739
19	Berkshire 1802 House	48	South Main St	Sheffield	MA	01257	berkshire1802@aol.com	
20	Berkshire Hills Country Inn	1146	Cold Spring Rd	Williamstown	MA	01267		
21	Berkshire Inn	150	W Housatonic St	Pittsfield	MA	01201		
22	Berkshire Lakeside Lodge	3949	Jacobs Ladders Rd	Becket	MA	01223	info@berkshirlakesidelodge.com	
23	Berkshire Mountain Lodge	8	Dan Fox Drive	Pittsfield	MA	01201	berkshiremtn@tricommanagement.com	
24	Berkshire Shirakaba Japanese Guest House	20	Mallery Road	New Ashford	MA	01237		
25	Berkshire Thistle B&B	19	East St	Stockbridge	MA	01262		
26	Berkshire Valley Inn	2541	Hancock Rd	Hancock	MA	01237	info@berkshirevalleyinn.com	
27	Best Western Plus Berkshire Hills Hotel	1350	W Housatonic St	Pittsfield	MA	01201		
28	Birch Hill Bed & Breakfast	254	S Undermountain Rd	Sheffield	MA	01257		
29	Birchwood Inn	7	Hubbard St	Lenox	MA	01240		
30	Black Swan Inn	435	Laurel St	Lee	MA	01238	sales@blackswaninnberkshires.com	
31	Blackinton Manor	1391	Massachusetts St	North Adams	MA	01247	theblackintonmanor@gmail.com	
32	Blantyre	16	Blantyre Rd	Lenox	MA	01240	welcome@blantyre.com	
33	Blue Willow Bed & Breakfast	2	Lincoln Ln	Stockbridge	MA	01262		
34	Briarcliff Motel	506	Stockbridge Rd	Great Barrington	MA	01230	briarcliff@mshgmail.com	
35	Brook Farm Inn	15	Hawthorne St	Lenox	MA	01240	innkeeper@brookfarm.com	
36	Canterbury Farm B&B	1986	Fred Snow Rd	Becket	MA	01223	canterburyfarm@verizon.net	
37	Canyon Ranch in Lenox	165	Kemble St	Lenox	MA	01240		

	A	B	C	D	E	F	G	H
38	Carriage House Motel	334	Route 7	New Ashford	MA	01237		
39	Chamberry Inn	199	Main St	Lee	MA	01238		
40	Chesapeake Inn of Lenox	210	West St	Lenox	MA	01240	ChesapeakeInn@aol.com	
41	Christine's Bed & Breakfast - Now: Ar	325	N Plain Rd	Housatonic	MA	02136	info@englishhideawayinn.com	
42	Cliffwood Inn	25	Cliffwood St	Lenox	MA	01240	contact@cliffwood.com	
43	Comfort Inn	1055	South St	Pittsfield	MA	01201		
44	Conroy's Bed & Breakfast	11	East Street	Stockbridge	MA	01262	conroysinn@gmail.com	
45	Cornell Inn	203	Main St	Lenox	MA	01240	innkeeper@cornellbb.com	
46	Courtyard by Marriot Lenox Berkshire	70	Pittsfield Road	Lenox	MA	01240		
47	Cozy Corner Motel	284	Sand Springs R	Williamstown	MA	01267	info@cozycormotel.com	
48	Crabtree Cottage	65	Franklin St	Lee	MA	01238		
49	Cranwell Spa & Gold Resort	55	Lee Road	Lenox	MA	01240		
50	Crowne Plaza Hotel Pittsfield	1	West Street	Pittsfield	MA	01201	crplaza@berkshirenet.com	
51	Days Inn	194	Pittsfield Lenox	Lenox	MA	01240		
52	Days Inn Berkshire	372	Main Street	Great Barringt	MA	01230		
53	Devonfield Inn	85	Stockbridge Rd	Lee	MA	01238		
54	Eastgate Inn	207	West St	Lenox	MA	01240	dalijat@juno.com	
55	Eastover Estate & Retreat	430	East St	Lenox	MA	01240		
56	Echezeaux	180	Cheever Rd	Richmond	MA	01254		(413) 698-2802
57	Econo Lodge	16	Cheshire Rd	Pittsfield	MA	01201		(413) 443-5661
58	Econo Lodge Lee	980	Pleasant Street	Lee	MA	01238		(413) 243-0501
59	Egmonts B&B	123	Walker Street	Lenox	MA	01240	guests@egmonts.net	
60	Egremont Inn	10	Old Sheffield Rc	Egremont	MA	01258		
61	Egremont Village Inn	17	Main Street	Egremont	MA	01258		
62	Fairfield Inn & Comfort Suites	249	Stockbridge Ro	Great Barringt	MA	01230		(413) 644-3200
63	Fairfield & Suites by Marriot/Berkshire	249	Stockbridge Rd	Great Barringt	MA	01230		
64	Federal House Inn	1560	Pleasant Street	Lee	MA	01238	info@federalhouseinn.com	
65	Field Farm Guest House	554	Sloan Rd	Williamstown	MA	01267	fieldfarm@ttor.org	
66	Garden Gables Inn	135	Main St	Lenox	MA	01240	innkeeper@gardengablesinn.com	
67	Gateways Inn Bed & Breakfast	51	Walker Street	Lenox	MA	01240	frontdesk@gatewaysinn.com	
68	Gedney Farm	34	Hartsville	New Marlboro	MA	01230	frontdesk@gedneyfarm.com	
69	Green Valley Motel	1214	Simonds Rd	Williamstown	MA	01267	reservation@motelma.com	
70	Halfinger Haus Restaurant, Tavern &	17	Commercial St	Adams	MA	01220	contact@halfingerhaus.com	
71	Hampton Inn & Suites	445	Pittsfield Road	Lenox	MA	01240		413-499-1111
72	Hampton Terrace Inn	91	Walker St	Lenox	MA	01240	info@hamptonterrace.com	
73	Hancock Inn B&B	102	Main Street	Hancock	MA	01237		
74	Harbour House Inn Bed/Breakfast	725	N State Rd	Cheshire	MA	01225	innkeeper@harbourhouseinn.com	

	A	B	C	D	E	F	G	H
75	Heart of the Berkshires Motel	970	W Housatonic S	Pittsfield	MA	01201		(413) 443-1255
76	Hilton Garden Inn Lenox Pittsfield	1032	South Street	Pittsfield	MA	01201		
77	Holiday Inn	40	Main St	North Adams	MA	01247	holidayinnberkshires@innvermont.com	413 6636500
78	Holiday Inn Express	415	Stockbridge Ro	Great Barringt	MA	01230	hiexgb@hotmail.com	
79	Holiday Inn Oak n' Spruce Resort	100	Meadow Street	Lee	MA	01238	reservation@holidayinnclub.com	
80	Hotel on North	297	North Street	Pittsfield	MA	01201	info@hotelonnorth.com	
81	House on Main Street	1120	Main St	Williamstown	MA	01267	Relax@houseonmainstreet.com	
82	Howard Johnson Express Inn	213	Main St	Williamstown	MA	01267		
83	Howard Johnson Express Inn	462	Pittsfield Road	Lenox	MA	01240		
84	Inn at Freeman Elms Farm B&B	566	Mill River G. Ba	New Marlboro	MA	01244	freemanelmsfarm@gmail.com	
85	Inn at Richmond & Berkshire Equestri	802	State Rd	Richmond	MA	01254	tiaraequest@gmail.com	
86	Inn at Stockbridge	30	East Street	Stockbridge	MA	01262	innkeeper@stockbridgeinn.com	
87	Inn at The Sweet Water Farm	1	Prospect Lake F	Great Barringt	MA	01230		
88	Jericho Valley Inn	2541	Hancock Rd	Hancock	MA	01237		
89	Jiminy Peak Mountain Resort	37	Corey Road	Hancock	MA	01237		413-738-5500
90	Kemble Inn	2	Kemble St	Lenox	MA	01240	stay@kembleinn.com	
91	Knights Inn	474	Pittsfield Road	Lenox	MA	01240		
92	Lakehouse Inn	615	Laurel St	Lee	MA	01238	lakehouseinnlaurel@gmail.com	
93	Lakeside Estate B&B	99	Kibbe Road	East Otis	MA	01253		
94	Lanesborough Country Inn	499	S Main St	Lanesborough	MA	01237	-	
95	Lantern House Motel	256	Stockbridge Ro	Great Barringt	MA	01230		413-528-2350
96	Lenox Inn	525	Pittsfield Rd	Lenox	MA	01240	info@thelenoxinn.com	
97	Maple Terrace Motel	555	Main St	Williamstown	MA	01267	stay@mapleterrace.com	
98	Mill Cottage	155	Willow St	Lee	MA	01238		tel: +4135283272
99	Monument Mountain Motel	247	Stockbridge Ro	Great Barringt	MA	01230		413-528-3272
100	Morgan House Inn & Restaurant	33	Main St	Lee	MA	01238		413-243-3661
101	Mount Greylock Inn	6	East Street	Adams	MA	01220	This is Bascom Lodge	
102	Mountain View Motel	304	State Rd	Great Barringt	MA	01230	themountainviewmotel@gmail.com	
103	New Ashford Inn & Motor Inn	259	State Road - Rt	New Ashford	MA	01237	mgigliotti4@aol.com	
104	Northside Motel	45	North Street	Williamstown	MA	01267	northside@bcn.net	
105	Olde Lamplighter B & B	8	Church Street	Stockbridge	MA	01262	CLOSED	
106	Orchard Shade Bed and Breakfast	999	Hewins St	Sheffield	MA	01257		(413)229-8463
107	Orchards	222	Adams Rd	Williamstown	MA	01267	reservations@orchardshotel	(413)458-9611
108	Parsonage on the Green	20	Park Pl	Lee	MA	01238	None	(413)243-4364
109	Pilgrim Inn	165	Housatonic St	Lee	MA	01238	"Contact Us" page	(413)243-1328
110	Pleasant Valley Motel	42	Stockbridge Rd	West Stockbri	MA	01266	None	(413)232-8511
111	Porches Inn	231	River St	North Adams	MA	01247	mel@porches.com	(413)664-0400

	A	B	C	D	E	F	G	H
112	Race Brook Lodge	864	S Undermountain	Sheffield	MA	01257	info@rblodge.com	(413)229-2916
113	Ramblewood Inn	400	Undermountain	Sheffield	MA	01257	info@ramblewood-inn.com	(413)229-3363
114	Red Lion Inn	30	Main St	Stockbridge	MA	01262	info@redlioninn	(413)298-5545
115	Redwood Motel	915	State Rd	North Adams	MA	01247	None	(413)664-4351
116	River Bend Farm Guests	643	Simonds Rd	Williamstown	MA	01267	None	(413)458-3121
117	Rodeway Inn	200	Laurel St	Lee	MA	01238	None	(413)243-0813
118	Rookwood Inn	11	Old Stockbridge	Lenox	MA	01240	innkeeper@rookwoodinn.com	(413)637-9750
119	Seven Hills Inn & Restaurant	40	Plunkett St	Lenox	MA	01240	frontdesk@sevenhillsinn.com	(413)637-0060
120	Shaker Mill Inn	7	Albany Road	West Stockbridge	MA	01266	"Contact Us" page	(413)232-8566
121	Shamrock Village Inn	633	Main St	Dalton	MA	01226	None	(413)684-0860
122	Southern Comfort Lodge	3949	Jacobs Ladders	Becket	MA	01233	info@berkshirerakesidelodge	(413)243-9907
123	Staveleigh House	59	Main Street	Sheffield	MA	01257	innkeeper@staveleigh.com	(413)229-2129
124	Steep Acres Farm B & B	522	White Oaks Rd	Williamstown	MA	01267	None	(413)281-8510
125	Stockbridge Country Inn	26	Glendale Road	Stockbridge	MA	01262	reservations@stockbridgecountryinn.com	(413)298-4015
126	Stone School Gallery	732	N Main St	Lanesborough	MA	01237	None	(413)4432-0996
127	Stonover Farm	169	Under Mountain	Lenox	MA	01240	stonoverfarm@aol.com	(413)637-9100
128	Sunset Farm Inn	74	Main Road	Tyringham	MA	01264	None	(413)243-3229
129	Sunset Inn	150	Housatonic St	Lee	MA	01238	kiren@msn.com (last updated 6/17/06)	(413)243-0302
130	Super 8 Motel	170	Housatonic St	Lee	MA	01238	None	(413)243-0143
131	Swan Lodge	169	Brett Road	Monterey	MA	01245	No email listed	(413)528-3294
132	Taggart House	18	Main Street	Stockbridge	MA	01262	stay@taggarthouse.com	(917) 623-8587
133	The Lake House Cottages	636	Main Street	Lanesborough	MA	01237	info@berkshirerlakehouse.com	(413)446-0017
134	The New Boston Inn	101	N Main St	Sandisfield	MA	01244	reservations@newbostoninn.com	(413)258-4477
135	The Old Inn on the Green	134	Hartsville - N. Main St	New Marlboro	MA	01230	info@oldinn.com	(413)229-7924
136	The Ponds at Foxhollow	3	Foxhollow Drive	Lenox	MA	01240	no email listed	(413)637-1469
137	The Springs Inn	94	New Ashford Rd	New Ashford	MA	01237	info@thespringsinnandresort.com	(413)458-7090
138	The Summer White House	17	Main Street	Lenox	MA	01240	innkeeper@thesummerwhitehouse.com	(413)637-4489
139	Thornewood Inn	453	Stockbridge Rd	Great Barrington	MA	01230	no email listed	(413)528-3828
140	Topia Inn	10	Pleasant Street	Adams	MA	01220	stay@topiainn.com	(413)743-9600
141	Travelodge Great Barrington Berkshire	400	Stockbridge Rd	Great Barrington	MA	01230	no email listed	(413)528-2340
142	Village Inn B&B	16	Church Street	Lenox	MA	01240	no email listed	(413)637-0021
143	Villager Motel	953	Simonds Rd	Williamstown	MA	01267	thevillagermotel@gmail.com	(413)458-4046
144	Wagon Wheel Inn	484	Pittsfield Road	Lenox	MA	01240	wagonwheel808@yahoo.com	(413)445-4532
145	Wainwright Inn	518	S Main St	Great Barrington	MA	01230	innkeeper@wainwrightinn.com	(413)528-2062
146	Weatherlane Motel	475	S Main St	Lanesborough	MA	01237	no email listed	(413)443-3230
147	Wheatleigh	11	Hawthorne St	Lenox	MA	01240	info@wheatleigh.com	(413)637-0610
148	Whistler's Inn	5	Greenwood St	Lenox	MA	01240	info@whistlersinnberkshires.com	(413)637-0975

Appendix B: MCLA Flyer E-mail Sent to Attractions & Locations

Greetings from the students of MATH-444 Operations Research at the Massachusetts College of Liberal Arts!

Our class has teamed up with the Berkshire Flyer working group (which includes members of the Massachusetts state government and MassDOT) to analyze a possible passenger train service from New York City to Berkshire County. The Berkshire Flyer would provide seasonal, weekend service from NYC's Penn Station to Pittsfield. Our class project involves gathering data on potential ridership, and you may be able to help!

[Attraction name] has been identified as a potential destination for travelers from New York City who might use the Berkshire Flyer service. We'd definitely be interested in any data on your [members/visitors/guests], including:

[The proportion of your members coming from the New York City metropolitan area--ZIP codes or area codes would be helpful]

The proportion of your [visitors/guests] coming from the New York City metropolitan area--ZIP codes or area codes are helpful

The number of [visitors/guests] per day/week/month, over the past few summers

[The numbers of visits by members per day/week/month, over the past few summers]

Durations of visits [if applicable---e.g., would ask a resort, but not a museum]

To further help with our research on future Berkshire Flyer service, our class has also developed a survey, linked here: <https://goo.gl/forms/mTb3LbMg5eAebili2> .

We are hoping that this survey will reach people who might regularly travel from New York City to the Berkshires, and therefore wonder whether it would be possible for you to e-mail this survey to your members? If needed, we can edit the survey to create a version specific for [attraction name] Please let us know!

We look forward to hearing from you at your earliest convenience.

Thank you, in advance, for your help!

The students of MATH-444 Operations Research

Massachusetts College of Liberal Arts
375 Church Street
North Adams, MA 01247

on behalf of

The Berkshire Flyer Working Group

<http://www.massdot.state.ma.us/planning/Main/CurrentStudies/BerkshireFlyerStudy.aspx>

Appendix C: E-mail correspondence with Attractions & Locations

On Sun, Nov 26, 2017 at 12:14 PM Kevin M. Chittenden <kchittenden@berkshirescenicrailroad.org> wrote:

Hello Math-444, OR!

BSRM has been a member of the working group so we are familiar with it.

Let me take this to our board to discuss the best approach. We do have a mailing list of visitors can certainly get an idea of how many come from the NYC area - however, it maybe more difficult to get exact numbers as the tickets purchased per contact are not readily accessible in that manner but I'll give it a look.

We may too be able to send out a targeted email to NYC attendees - also something I'll have to research a little

Give me a bit and I'll get back with you.
Thanks for reaching out to us,
Kevin

Kevin M Chittenden
Superintendent, Train Operations
Berkshire Scenic Railway Museum, Inc.
(413) 537-6788 (cell)

<http://www.berkshirescenicrailroad.org>

Rebecca Brighenti

Dec 15 (3 days ago) ☆

to me, Box, Madelyn ▾

Hi there,

The basic data we pulled based on your request is this:

For the summer of 2017 (June, July and August)

We had approximately 7500 ticket orders, of which approximately 1200 were from the greater NYC metro area.

We hope this helps and whole heartedly support train service to the Berkshires!

Best,

Becky

...

On Thu, Dec 14, 2017 at 3:38 PM, MCLA Berkshire Flyer <mclaflyer@gmail.com> wrote:

Hi Rebecca,

Most helpful would be the number of visitors to events held during the summer season (June, July, and August) in the most recent year for which data is available, and the percentage of these visitors who were from the New York City metropolitan area (if this is known).

Thanks again!

On Thu, Dec 14, 2017 at 3:13 PM, Rebecca Brighenti <becky@berkshiretheatre.org> wrote:

Since that deadline is quickly approaching, what data would be most helpful at this time?

On Thu, Dec 14, 2017 at 3:09 PM, MCLA Berkshire Flyer <mclaflyer@gmail.com> wrote:

Hi Rebecca,

Thank you so much for sharing our survey on social media!
Our deadline for any additional data would be this Friday the 15th.

Thanks again for your help,
We look forward to receiving your response!

The students of MATH-444 Operations Research
Massachusetts College of Liberal Arts
375 Church Street
North Adams, MA 01247

on behalf of

The Berkshire Flyer Working Group <http://www.massdot.state.ma.us/planning/Main/CurrentStudies/BerkshireFlyerStudy.aspx>

On Tue, Dec 12, 2017 at 12:53 PM, Rebecca Brighenti <becky@berkshiretheatre.org> wrote:

Dear MCLA Students,

Thank you for reaching out regarding this very important topic. When is your deadline for receiving this data?

In the meantime, we are happy to post your market survey on social media.

Best,

Becky Brighenti

Linda Frelinghuysen

Dec 14 (4 days ago) ☆

to me ▾

Hello Students,

Here is an excerpt from our mailing list showing the NYC towns and zip codes, you will find the attachment above.

These people have either visited or are members.

Also, I have just sent out the survey to our email list.

We have approximately 2500 visitors per season. The percentage of NYC area residents is about 50%, however that is not just NYC.

We are open 4 days a week from late June to Early October.

Good luck with the project.

I suggest you find the facebook page which is set up for people seeking rides from the Metro-North RR station at Waissaic to GB or Lenox. You may get a lot of info there or post something.

Sincerely,

Linda Frelinghuysen

Linda Bacon <canterburybacon@gmail.com>

Nov 29 ☆

to me ▾

Canterbury Farm B&B has been identified as a potential destination for travelers from New York City who might use the Berkshire Flyer service. We'd definitely be interested in any data on your guests, including:

- The proportion of your guests coming from the New York City metropolitan area--ZIP codes or area codes are helpful: During the summer 75% come from New York. During the winter most come from CT and MA
- The number of guests per day/week/month, over the past few summers: Summer: 280 lodging user days (may include two persons). Winter: 80 lodging user days (may include two persons), Skiing day ticket holders varies between 60-200 persons per day.
- Durations of the average visit: two days average visit.

Hope this information helps.

Linda Bacon

Camesha Scruggs <cscruggs@umass.edu>

Nov 27 ☆

to me ▾

To Whom It May Concern:

To answer your inquiry, this data is based on the 2016 and 2017 tour seasons. Tour season is July - September. 10% of visitors stated they were from the NYC metropolitan area when asked. The average number of visitors per month is 60. This does not include visitors to the site before or after operating hours.

I hope this helps with your inquiry.

Best,

Camesha Scruggs
Summer 2016 and 2017 Tour guide

On 2017-11-24 06:23 PM, MCLA Berkshire Flyer wrote:

Greetings from the students of MATH-444 Operations Research at the Massachusetts College of Liberal Arts!

Our class has teamed up with the Berkshire Flyer working group (which includes members of the Massachusetts state government and MassDOT) to analyze a possible passenger train service from New York City to Berkshire County. The Berkshire Flyer would provide seasonal, weekend service from NYC's Penn Station to Pittsfield. Our class project involves gathering data on potential ridership, and you may be able to help!

W.E.B. Du Bois National Historic Site has been identified as a potential destination for travelers from New York City who might use the Berkshire Flyer service. We'd definitely be interested in any data on your visitors/guests, including:

The proportion of your visitors and/or members coming from the New York City metropolitan area--ZIP codes or area codes would be helpful. The number of visitors per day/week/month, over the past few summers.

To further help with our research on future Berkshire Flyer service, our class has also developed a survey, linked here:
<https://goo.gl/forms/mTb3LbMg5eAebili2> [1]

We are hoping that this survey will reach people who might regularly travel from New York City to the Berkshires, and therefore wonder whether it would be possible for you to e-mail this survey to any member list you might have? If needed, we can edit the survey to create a version specific for W.E.B. Du Bois National Historic Site. Please let us know!

We look forward to hearing from you at your earliest convenience.

Thank you, in advance, for your help!
The students of MATH-444 Operations Research
on behalf of
The Berkshire Flyer Working Group

Appendix D: Berkshire Flyer Ridership Survey

Section 1 of 4



Berkshire Flyer Ridership Survey

The Berkshire Flyer Group is examining the possibility of establishing a seasonal weekend passenger service between Pittsfield and New York City by expanding Amtrak's existing options.

Market research is needed to determine the feasibility of this proposal. So, we want to ask you the following questions in the hope of being able to evaluate the demand for this type of service.

Thank you for taking the time to fill out the survey and sharing your thoughts on this study.

Are you in favor of expanding rail service between the Berkshires and NYC? *

☐ Yes

☐ No



Would you use this service if it existed? *

☐ I would personally use this service.

☐ My friends/family and I would use this service.

☐ I would not use this service but I know people that would.

☐ I would not use this service and I do not know anyone that would.

Section 2 of 4



Section title (optional)

Description (optional)

What is your age?

- ☐ 17 and under
- ☐ 18-30
- ☐ 31-42
- ☐ 43-55
- ☐ 56-64
- ☐ 65+

Section 3 of 4



Section title (optional)

Description (optional)

How often would you use this service? *

- ☐ Yearly
- ☐ Monthly
- ☐ Weekly

...

How long do you typically spend visiting the Berkshires? *

- ☐ A single day
- ☐ A few days
- ☐ A week
- ☐ More than a week
- ☐ Other...

...

For what reasons would you be visiting the Berkshires? *

- ☐ Hiking/camping/fishing
- ☐ Skiing/snowboarding
- ☐ Cultural attractions
- ☐ Visiting friends and family
- ☐ Other...

...

What is your final destination when coming to the Berkshires? *

- ☐ Lee
- ☐ Lenox
- ☐ Great Barrington
- ☐ Pittsfield
- ☐ North Adams
- ☐ Williamstown
- ☐ Other...

What would be your seating preference aboard the train? *

- ☐ Coach class
- ☐ Business class
- ☐ First class

Service on currently existing lines changes trains at Albany-Rensselaer station, and takes around 5 hours; if the Berkshire Flyer were to run a dedicated train on this same line, it would take around 4 hours. If the new service were to bypass Albany-Rensselaer, the travel time could be further reduced by around 20 minutes. What is the maximum amount you would pay in order to bypass Albany-Rensselaer on the new service? *

Short answer text

Section 4 of 4

Section title (optional)

Description (optional)

How much do you currently pay for transportation to the Berkshires? *

Short answer text

...

(OPTIONAL) Are you of Hispanic, Latino, or Spanish origin?

☐ Yes

☐ No

(OPTIONAL) What is your household's total income?

- ☐ Less than \$30,000
- ☐ \$30,000 to \$70,000
- ☐ \$70,000 to \$100,000
- ☐ \$100,000 to \$150,000
- ☐ \$150,000 to \$200,000
- ☐ More than \$200,000

(OPTIONAL) Check any that apply.

- ☐ White
- ☐ Black or African American
- ☐ Asian
- ☐ Native Hawaiian or Pacific Islander
- ☐ Native American or Alaskan Native
- ☐ Other...

...

12/5/2017 15:55:35	Yes	I would personally use 131-42	Monthly	I live here. I would v	Cultural attractions	Pittsfield	Coach ct:####	MTA fare plu	No	White	\$30,000 to \$70,000	
12/5/2017 16:03:51	Yes	I would personally use 131-42	Yearly	A few days	Cultural attractions	Lenox	Coach ct	100 Drive	No	White		
12/5/2017 16:04:41	Yes	I would personally use 118-30	Monthly	I live here	See above	Pittsfield	Coach ct	\$10 To go to New	No	White	Less than \$30,000	
12/5/2017 16:08:24	Yes	I would personally use 143-55	Monthly	I live here.	Cultural attractions	Pittsfield	Coach ct	50	100 No	White	Less than \$30,000	
12/5/2017 16:15:50	Yes	I would personally use 118-30	Weekly	A few days	Cultural attractions	Pittsfield	Coach ct	50	100 No	White	\$30,000 to \$70,000	
12/5/2017 16:30:43	Yes	My friends/family and I 31-42	Monthly	More than a week	All of the above!	Pittsfield	Coach ct	\$75	40 No	White	\$150,000 to \$200,000	
12/5/2017 16:37:07	Yes	My friends/family and I 31-42	Yearly	I live here; I would t	I live here.	North Adams	Coach ct	\$30 \$60 from Be	No	White	\$30,000 to \$70,000	
12/5/2017 16:38:30	Yes	My friends/family and I 43-55	Monthly	I live here	I'd be going TO NYC	North Adams	Coach ct	\$30 I drive	No	White	\$70,000 to \$100,000	
12/5/2017 16:39:48	Yes	My friends/family and I 18-30	Monthly	More than a week	Visiting friends and f	Lenox	Coach ct	\$30 \$26 one way	No	White	\$30,000 to \$70,000	
12/5/2017 16:50:26	Yes	My friends/family and I 31-42	Weekly	I live in the Berkshir	I live in the Berkshire	Lenox	First class	would \$8+ per ride	No	White	More than \$200,000	
12/5/2017 16:52:06	Yes	My friends/family and I 31-42	Yearly	I live here	I live here, would visit	Lenox	Coach ct	\$25 Currently tak	No	White	More than \$200,000	
12/5/2017 16:54:04	Yes	I would personally use 131-42	Yearly	More than a week	Cultural attractions	Lenox	Coach ct	30 Gas money	No	White	\$70,000 to \$100,000	
12/5/2017 16:58:57	Yes	My friends/family and I 18-30	Monthly	More than a week	Cultural attractions	Lenox	First class	\$40	\$50 No	White	\$150,000 to \$200,000	
12/5/2017 17:04:33	Yes	I would not use this service but I know people that would.						I don't.	No	White	Less than \$30,000	
12/5/2017 17:04:35	Yes	My friends/family and I 43-55	Weekly	More than a week	Working	North Adams	Coach ct	40 Varies	No	White	\$100,000 to \$150,000	
12/5/2017 17:05:52	Yes	I would personally use 131-42	Yearly	A few days	Visiting friends and f	Lenox	Coach ct	\$40 \$150-400	No	White	\$70,000 to \$100,000	
12/5/2017 17:08:53	Yes	I would personally use 165+	Monthly	5 1/2 months a year	Cultural attractions	Pittsfield	First class	60	40 No	White	More than \$200,000	
12/5/2017 17:09:10	Yes	I would personally use 156-64	Weekly	I live here and work	I live here	Lenox	Coach ct	\$45	32 No	White	More than \$200,000	
12/5/2017 17:15:52	Yes	I would personally use 143-55	Monthly	Daily	Living here	Pittsfield	Coach ct	\$40	\$37 No	White	\$30,000 to \$70,000	
12/5/2017 17:16:17	Yes	I would personally use 118-30	Monthly	I live here	I live here	Pittsfield	Coach ct	\$75 or \$108 round trip	White		\$30,000 to \$70,000	
12/5/2017 17:23:29	Yes	I would personally use 118-30	Monthly	A few days	Visiting friends and f	Pittsfield	Coach ct	40	100 No		Less than \$30,000	
12/5/2017 17:24:27	Yes	My friends/family and I 56-64	Monthly	I live in the Berkshir	Coming home	Williamstown	Coach ct	\$10 About \$45	No	White	\$150,000 to \$200,000	
12/5/2017 17:24:34	Yes	My friends/family and I 65+	Yearly	I am a resident	I am a resident		Coach ct	\$5 mo	Don't know	No	White	Less than \$30,000
12/5/2017 17:24:51	Yes	I would personally use 118-30	Yearly	A few days	Cultural attractions	Lee	Coach ct	70	44 Yes	White,	\$30,000 to \$70,000	
12/5/2017 17:25:33	Yes	I would personally use 118-30	Weekly	A few days	Cultural attractions	Pittsfield	Coach ct	\$30 \$100-\$120 r	No	White	\$30,000 to \$70,000	
12/5/2017 17:26:25	Yes	I would personally use 118-30	Monthly	More than a week	Cultural attractions	Pittsfield	Coach ct	\$30 I lived in the	Yes	White	Less than \$30,000	
12/5/2017 17:29:25	Yes	I would personally use 165+	Yearly	I live here	I live here	Pittsfield	First class	I don't I live here	No	White	\$30,000 to \$70,000	
12/5/2017 17:32:30	Yes	My friends/family and I 31-42	Monthly	I live in the Berkshir	Visiting friends and f	Pittsfield	Business	\$25 or \$74 round tri	No	White	\$150,000 to \$200,000	
12/5/2017 17:33:01	Yes	I would personally use 165+	Monthly	5 1/2 months a year	Cultural attractions	Pittsfield	First class	60	40 No	White	More than \$200,000	
12/5/2017 17:41:04	Yes	I would personally use 118-30	Monthly	I live here and travel	I live here.	Pittsfield	Coach ct	\$40	\$40 No	White	\$70,000 to \$100,000	
12/5/2017 17:43:19	Yes	My friends/family and I 18-30	Monthly	A few days	Visiting friends and f	Lenox	Coach ct	60 20 one way	No	White	\$70,000 to \$100,000	
12/5/2017 17:46:25	Yes	I would personally use 131-42	Yearly	More than a week	Visiting friends and f	Pittsfield	Coach ct	3.5 ho	0 No	White	Less than \$30,000	
12/5/2017 17:56:14	Yes	My friends/family and I 56-64	Monthly	More than a week	Cultural attractions	Williamstown	Coach ct	Unsur	\$100 No	White	\$100,000 to \$150,000	
12/5/2017 18:05:00	Yes	I would not use this service but I know people that would.						n/a	No	White	Less than \$30,000	
12/5/2017 18:08:03	Yes	My friends/family and I 65+	Monthly	I live here	All of above	Great Barringt	Coach ct	35 \$20 approx	r	No	White	\$30,000 to \$70,000
12/5/2017 18:08:46	Yes	My friends/family and I 31-42	Yearly	I live there	I live there	North Adams	Coach ct	\$25 I live there	No	White	\$100,000 to \$150,000	
12/5/2017 18:11:33	Yes	I would personally use 156-64	Monthly	planning to move th	residing	west stockbrid	Coach ct	\$20 drive but don't want to				
12/5/2017 18:21:02	Yes	I would personally use 131-42	Monthly	A few days	Visiting friends and f	Pittsfield	Coach ct	\$5	\$50 No	White	\$70,000 to \$100,000	
12/5/2017 18:21:18	Yes	My friends/family and I 43-55	Weekly	More than a week	Visiting friends and f	Adams, why is	Business	\$15	\$20			
12/5/2017 18:23:35	Yes	My friends/family and I 65+	Monthly	More than a week	I have a home there	Richmond	First class	I do not know	No	White	More than \$200,000	
12/5/2017 18:27:57	Yes	My friends/family and I 65+	Monthly	I live here	I live here	Pittsfield	Coach ct	30	24 No	No	\$30,000 to \$70,000	
12/5/2017 18:31:45	Yes	I would personally use 118-30	Monthly	A few days	Visiting friends and f	Great Barringt	Coach ct	\$20 GAS	No	White	\$70,000 to \$100,000	
12/5/2017 18:37:25	Yes	I would personally use 131-42	Yearly	I live here	I live here	Coach ct	Coach ct	\$75 I live here	No	White	\$150,000 to \$200,000	
12/5/2017 18:37:25	Yes	My friends/family and I 56-64	Monthly	I live here	I live here	Pittsfield	Coach ct	\$45	30 No	White		
12/5/2017 18:38:44	Yes	My friends/family and I 18-30	Monthly	More than a week	Visiting friends and f	Williamstown	Coach ct	\$60 \$30 plus a ri	No	White	More than \$200,000	

12/5/2017 18:40:19	Yes	My friends/family and I	Weekly	Split residence betw	Spitt residences	Pittsfield	Coach ct	\$40	\$18/week	pl	No	White	\$100,000 to \$150,000
12/5/2017 18:54:25	Yes	My friends/family and I	Yearly	A few days	Visiting friends and f	Pittsfield	Coach ct	50	40			White	\$70,000 to \$100,000
12/5/2017 18:54:26	Yes	My friends/family would	Monthly	A few days	Hiking/camping/fishir	Lenox	Coach ct	25	I drive from	1	No	White	\$70,000 to \$100,000
12/5/2017 19:00:53	Yes	I would personally use	Monthly	More than a week	Visiting friends and f	Pittsfield	First clas	30	30	No		White	More than \$200,000
12/5/2017 19:01:38	Yes	My friends/family and I	Monthly	I live here	I live here	Pittsfield	Coach ct	\$45	30	No		White	
12/5/2017 19:04:07	Yes	I would personally use	Monthly	A few days	Visiting friends and f	Pittsfield	Coach ct	30	mir	50	No	White	\$70,000 to \$100,000
12/5/2017 19:08:09	Yes	I would personally use	Monthly	A few days	Visiting friends and f	Pittsfield	Business	\$15	\$40	No		White	\$30,000 to \$70,000
12/5/2017 19:19:06	Yes	My friends/family and I	Monthly	More than a week	Visiting friends and f	Williamstown	First clas	\$100	\$65	No		White	More than \$200,000
12/5/2017 19:20:43	Yes	I would personally use	Monthly	More than a week	Cultural attractions	Dalton	Coach ct	\$45	40	No		White	\$100,000 to \$150,000
12/5/2017 19:21:55	Yes	My friends/family and I	Monthly	A few days	Visiting friends and f	Great Barringt	Coach ct	\$0	Varies	No		White, Asian	
12/5/2017 19:27:46	Yes	I would personally use	Monthly	I live in the Berkshir	I live in the Berkshir	North Adams	Coach ct	\$75	nothing	No		White	\$70,000 to \$100,000
12/5/2017 19:32:53	Yes	I would personally use	Weekly	I keep a home in N	Cultural attractions	Pittsfield	Coach ct	Not su	I use the me	No		White	\$30,000 to \$70,000
12/5/2017 19:33:05	Yes	My friends/family and I	Monthly	A week	Cultural attractions	Becket	Coach ct	45	300	No		White, A	\$100,000 to \$150,000
12/5/2017 19:34:23	Yes	I would personally use	Monthly	I live here	I live here	Lenox	Business	30	doll	0.00	I live there		
12/5/2017 19:39:48	Yes	My friends/family and I	Monthly	I live here and visit	Hiking/camping/fishir	Lenox	Coach ct	55	29.50	one w	No	White	
12/5/2017 19:40:25	Yes	My friends/family and I	Monthly	I live here	Live here	Williamstown	Coach ct	100	400	a month	No	White	\$70,000 to \$100,000
12/5/2017 19:43:40	Yes	My friends/family and I	Monthly	am a resident	am a resident	Williamstown	Business			50	No	White	\$30,000 to \$70,000
12/5/2017 19:44:24	Yes	I would personally use	Monthly	Commute	Travel home	North Adams	Coach ct	any	lots			White	\$100,000 to \$150,000
12/5/2017 19:46:22	Yes	I would personally use	Monthly	A few days	Visiting friends and f	North Adams	Coach ct	70	I drive so	\$4	No	White	\$30,000 to \$70,000
12/5/2017 19:55:00	Yes	I would personally use	Yearly	A few days	Cultural attractions	Stockbridge	Coach ct	\$160	r Metro north	t	No	White	\$30,000 to \$70,000
12/5/2017 20:10:42	Yes	I would personally use	Monthly	I live in berkshires	I live here	Great Barringt	Coach ct	60	35	No		White	\$150,000 to \$200,000
12/5/2017 20:11:24	Yes	My friends/family and I	Monthly	A few days	Visiting friends and f	Pittsfield	Coach ct	unknown				White	\$70,000 to \$100,000
12/5/2017 20:24:28	No	I would not use this service but I	Monthly	Weekends and Holl	Visiting family. Home	Adams	Coach ct	\$75	or \$110	round t	No	White	\$150,000 to \$200,000
12/5/2017 20:25:09	Yes	I would personally use	Yearly	More than a week	Visiting friends and f	Williamstown	Coach ct	####	\$2-400			White	\$70,000 to \$100,000
12/5/2017 20:32:35	Yes	I would not use this service but I	Monthly	know people that would.			Coach ct					White	\$30,000 to \$70,000
12/5/2017 20:40:35	Yes	My friends/family and I	Yearly	A single day	Visiting friends and f	Pittsfield	Coach ct	10	doll	Between \$1	No	White	\$70,000 to \$100,000
12/5/2017 20:48:47	Yes	My friends/family and I	Yearly	I live here	I live here	North Adams	Coach ct	\$30	0	No		White	\$70,000 to \$100,000
12/5/2017 21:06:37	Yes	My friends/family and I	Yearly	A week	Visiting friends and f	North Adams	Coach ct	\$40	\$200	No		White	\$30,000 to \$70,000
12/5/2017 21:07:32	Yes	My friends/family and I	Monthly	A few days	Cultural attractions	Becket	Coach ct	\$45	\$55	Yes		White	\$30,000 to \$70,000
12/5/2017 21:15:12	Yes	I would personally use	Monthly	More than a week	Cultural attractions	Stockbridge	Coach ct	\$75	Drive	No		White	\$150,000 to \$200,000
12/5/2017 21:17:09	Yes	My friends/family and I	Monthly	A few days	Visiting friends and f	Williamstown	Coach ct	100	Drive but wo	No		White	More than \$200,000
12/5/2017 21:19:34	Yes	My friends/family and I	Weekly	More than a week	Hiking/camping/fishir	Great Barringt	Coach ct	\$40	we drive so	t	No	White	\$100,000 to \$150,000
12/5/2017 21:21:09	Yes	I would personally use	Monthly	A week	Visiting friends and f	Williamstown	Coach ct	20	120			White	
12/5/2017 21:30:49	Yes	I would personally use	Monthly	A few days	Visiting friends and f	Lenox	Business	50				Asian	\$30,000 to \$70,000
12/5/2017 21:33:07	Yes	I would personally use	Monthly	More than a week	Visiting friends and f	Lee	Coach ct	\$40	\$40	No		White	\$70,000 to \$100,000
12/5/2017 21:42:46	Yes	My friends/family and I	Monthly	A few days	Cultural attractions	North Adams	Coach ct	\$25	\$200	No		White	\$30,000 to \$70,000
12/5/2017 21:43:55	Yes	My friends/family and I	Monthly	I live here	Live here	Williamstown	Coach ct	30	\$75 - to nyc	No		White	\$30,000 to \$70,000
12/5/2017 22:08:32	Yes	My friends/family and I	Monthly	A single day	Visiting friends and f	Pittsfield	Coach ct	\$30	m Approximate	No		Asian	\$100,000 to \$150,000
12/5/2017 22:12:32	Yes	My friends/family and I	Monthly	I live here	Cultural attractions	Great Barringt	Coach ct	unsure	@\$20 each	1	No	White, N	\$70,000 to \$100,000
12/5/2017 22:14:01	Yes	I would personally use	Monthly	A few days	Cultural attractions	Pittsfield	Coach ct	40	18	No		White	\$30,000 to \$70,000
12/5/2017 22:14:20	Yes	My friends/family and I	Monthly	A few days	Cultural attractions	North Adams	Coach ct	\$25	\$200	No		White	\$30,000 to \$70,000
12/5/2017 22:17:51	Yes	My friends/family and I	Monthly	A few days	Cultural attractions	North Adams	Coach ct	\$25	\$200	No		White	\$30,000 to \$70,000
12/5/2017 22:19:27	Yes	My friends/family and I	Monthly	A few days	Cultural attractions	North Adams	Coach ct	\$25	\$200	No		White	\$30,000 to \$70,000

12/5/2017 22:25:18	Yes	My friends/family and I	31-42	Yearly	More than a week	Visiting friends and friends	Pittsfield	Business	\$5	\$35	No	White	\$100,000 to \$150,000
12/5/2017 22:33:06	Yes	My friends/family and I	43-55	Yearly	A few days	Cultural attractions	Williamstown	Coach	\$50	Gas money	No	White	\$100,000 to \$150,000
12/5/2017 22:47:57	Yes	My friends/family and I	56-64	Monthly	I would visit NYC	I live in the Berkshires	Williamstown	Business	\$30	I drive	No	White	More than \$200,000
12/5/2017 23:12:42	Yes	My friends/family and I	65+	Yearly	I am a resident	I am a resident	I am a resident	Coach	\$5	mo	Don't know	White	Less than \$30,000
12/5/2017 23:12:49	Yes	I would personally use	18-30	Monthly	A week	Cultural attractions	Lee	Coach	20	100		White	Less than \$30,000
12/5/2017 23:13:48	Yes	My friends/family and I	65+	Yearly	I am a resident	I am a resident	I am a resident	Coach	\$5	mo	Don't know	White	Less than \$30,000
12/5/2017 23:14:54	Yes	My friends/family and I	65+	Yearly	I am a resident	I am a resident	I am a resident	Coach	\$5	mo	Don't know	White	Less than \$30,000
12/5/2017 23:15:29	Yes	My friends/family and I	65+	Yearly	I am a resident	I am a resident	I am a resident	Coach	\$5	mo	Don't know	White	Less than \$30,000
12/5/2017 23:15:53	Yes	My friends/family and I	65+	Yearly	I am a resident	I am a resident	I am a resident	Coach	\$5	mo	Don't know	White	Less than \$30,000
12/5/2017 23:16:11	Yes	My friends/family and I	65+	Yearly	I am a resident	I am a resident	I am a resident	Coach	\$5	mo	Don't know	White	Less than \$30,000
12/5/2017 23:17:09	Yes	My friends/family and I	65+	Yearly	I am a resident	I am a resident	I am a resident	Coach	\$5	mo	Don't know	White	Less than \$30,000
12/5/2017 23:17:34	Yes	My friends/family and I	65+	Yearly	I am a resident	I am a resident	I am a resident	Coach	\$5	mo	Don't know	White	Less than \$30,000
12/5/2017 23:17:52	Yes	My friends/family and I	65+	Yearly	I am a resident	I am a resident	I am a resident	Coach	\$5	mo	Don't know	White	Less than \$30,000
12/5/2017 23:18:13	Yes	My friends/family and I	65+	Yearly	I am a resident	I am a resident	I am a resident	Coach	\$5	mo	Don't know	White	Less than \$30,000
12/5/2017 23:18:53	Yes	My friends/family and I	65+	Yearly	I am a resident	I am a resident	I am a resident	Coach	\$5	mo	Don't know	White	Less than \$30,000
12/5/2017 23:19:45	Yes	My friends/family and I	65+	Yearly	I am a resident	I am a resident	I am a resident	Coach	\$5	mo	Don't know	White	Less than \$30,000
12/5/2017 23:20:34	Yes	My friends/family and I	65+	Yearly	I am a resident	I am a resident	I am a resident	Coach	\$5	mo	Don't know	White	Less than \$30,000
12/5/2017 23:23:34	Yes	My friends/family and I	65+	Yearly	I am a resident	I am a resident	I am a resident	Coach	\$5	mo	Don't know	White	Less than \$30,000
12/5/2017 23:24:32	Yes	My friends/family and I	65+	Yearly	I am a resident	I am a resident	I am a resident	Coach	\$5	mo	Don't know	White	Less than \$30,000
12/5/2017 23:24:57	Yes	My friends/family and I	65+	Yearly	I am a resident	I am a resident	I am a resident	Coach	\$5	mo	Don't know	White	Less than \$30,000
12/5/2017 23:25:05	Yes	I would personally use	143-55	Weekly	I live in the berkshires	I will go to new york	Pittsfield	Coach	Any	35 dills	Yes	White	\$30,000 to \$70,000
12/5/2017 23:26:51	Yes	My friends/family and I	65+	Yearly	I am a resident	I am a resident	I am a resident	Coach	\$5	mo	Don't know	White	Less than \$30,000
12/5/2017 23:28:34	Yes	My friends/family and I	31-42	Monthly	I live here	I live here	Pittsfield	First class	40	0	No	White	Less than \$30,000
12/5/2017 23:44:57	Yes	I would personally use	118-30	Yearly	A few days	Cultural attractions	Great Barrington	Coach	20	60	No	White	\$30,000 to \$70,000
12/6/2017 0:12:34	Yes	My friends/family and I	18-30	Monthly	A few days	Seasonal work	Lee	Coach	\$10	\$55	No	White	\$30,000 to \$70,000
12/6/2017 1:07:42	Yes	My friends/family and I	18-30	Monthly	I live in the Berkshires	I live in the berkshire	Great Barrington	Coach	40	25	No	White	\$100,000 to \$150,000
12/6/2017 2:34:58	Yes	I would personally use	143-55	Monthly	I live here	I live here	North Adams	Coach	\$10	Not sure	No	White	\$70,000 to \$100,000
12/6/2017 3:37:06	Yes	I would personally use	156-64	Monthly	I live here.	Cultural attractions	Becket	Coach	15,000	25	No	White	Less than \$30,000
12/6/2017 6:16:19	Yes	I would not use this service but I know people that would.											
12/6/2017 7:33:09	Yes	My friends/family and I	18-30	Monthly	I currently live in the	Cultural attractions	North Adams	Coach	\$75	\$100	No	White	\$100,000 to \$150,000
12/6/2017 7:34:23	Yes	My friends/family and I	31-42	Monthly	A few days	Visiting friends and friends	Pittsfield	Coach	\$50	\$200	No	White	\$150,000 to \$200,000
12/6/2017 7:48:59	Yes	I would personally use	131-42	Monthly	I live here	I live here	Pittsfield	Coach	To save	drive to and	No	White	\$150,000 to \$200,000
12/6/2017 8:08:05	Yes	My friends/family and I	56-64	Monthly	I live here but would	Visiting friends and friends	Stockbridge	Business	\$10	0	Yes	White	More than \$200,000
12/6/2017 8:16:11	Yes	I would personally use	131-42	Monthly	I live in Pittsfield	I live here	Pittsfield	Coach	40	\$40		White	\$70,000 to \$100,000
12/6/2017 8:23:36	Yes	I would personally use	131-42	Yearly	I live here	Hiking/camping/fishing	Pittsfield	Coach	40	\$40		White	\$70,000 to \$100,000
12/6/2017 8:26:40	Yes	I would personally use	118-30	Monthly	More than a week	Visiting friends and friends	Great Barrington	Coach	50	20		White	\$30,000 to \$70,000
12/6/2017 8:27:54	Yes	My friends/family and I	43-55	Yearly	A few days	Visiting friends and friends	Lenox	Business	\$100	Has money	No	White	\$30,000 to \$70,000
12/6/2017 8:29:17	Yes	I would personally use	143-55	Monthly	A single day	Cultural attractions	Adams	Coach	50	50	No	White	\$30,000 to \$70,000
12/6/2017 8:30:26	Yes	I would personally use	143-55	Weekly	A few days	Cultural attractions	Pittsfield	Coach	40	40	No	White	\$30,000 to \$70,000
12/6/2017 8:31:31	Yes	My friends/family and I	43-55	Weekly	A few days	Visiting friends and friends	Pittsfield	Coach	50	50	No	White	\$100,000 to \$150,000
12/6/2017 8:33:22	Yes	My friends/family and I	31-42	Monthly	I'm a full time Berk	I'm a full time Berksh	Dalton	Coach	\$50	I travel from	No	White	\$100,000 to \$150,000
12/6/2017 8:46:02	Yes	My friends/family and I	31-42	Yearly	A few days	Visiting friends and friends	Dalton	Business	\$50	Tank of gas	No	White	\$100,000 to \$150,000
12/6/2017 9:01:09	Yes	My friends/family and I	31-42	Yearly	I live here	I live here	North Adams	Coach	\$40	Don't know.	No	White	\$30,000 to \$70,000
12/6/2017 9:09:33	Yes	I would personally use	143-55	Monthly	I live here. I'd go to live here.		North Adams	Coach	Up to	Depends	No		

12/6/2017 9:12:49	Yes	My friends/family and I	31-42	Yearly	I live here, why is it again, I LIVE HERE	North Adams	Coach	cl	Less than \$100,000	\$70,000 to \$100,000
12/6/2017 9:22:28	Yes	My friends/family and I	31-42	Yearly	I live in the Berkshires Visiting friends and family	Lenox	Business	80,000	Driving/shuttle	No
12/6/2017 9:54:26	Yes	I would personally use	18-30	Yearly	I'm interested in golf	Visiting friends and family	The Berkshires	Coach	cl	\$50 Unknown
12/6/2017 9:54:48	Yes	I would personally use	156-64	Weekly	A few days	Visiting friends and family	North Adams	Coach	cl	55-42 one way
12/6/2017 10:04:04	Yes	My friends/family and I	18-30	Monthly	I reside in the Berkshires	I reside in the Berkshires	Dartmouth	Business	\$50	I reside in the Berkshires
12/6/2017 10:11:23	Yes	I would personally use	131-42	Weekly	A few days	Hiking/camping/fishing	Williamstown	Coach	cl	\$100 \$50
12/6/2017 10:15:33	Yes	My friends/family and I	56-64	Monthly	I live in the Berkshires	I live here	Hinsdale	Coach	cl	#####
12/6/2017 10:15:40	Yes	My friends/family and I	65+	Monthly	More than a week	Cultural attractions	Lenox	Business	75	Varies - gas, No
12/6/2017 10:37:08	Yes	I would personally use	131-42	Monthly	A few days	All of the above	West Pitsfield	Business	\$100	Varies depending on
12/6/2017 10:38:46	Yes	I would personally use	156-64	Weekly	I would be visiting	Norfolk	Coach	cl	Don't know	No
12/6/2017 10:41:44	Yes	I would personally use	131-42	Weekly	I am based here in the Berkshires	I would live above	Lenox	Coach	cl	\$25 \$20
12/6/2017 10:44:02	Yes	My friends/family and I	43-55	Monthly	I live here	I live here	Lenox	Coach	cl	100 My own car
12/6/2017 11:08:59	Yes	I would personally use	18-30	Yearly	More than a week	Cultural attractions	Lenox	Coach	cl	80 No
12/6/2017 11:23:10	Yes	I would personally use	18-30	Yearly	A few days	Visiting friends and family	Lee	Coach	cl	\$15 No
12/6/2017 11:30:23	Yes	I would personally use	131-42	Monthly	A few days	Cultural attractions	North Adams	Coach	cl	10 gas
12/6/2017 11:49:55	Yes	My friends/family and I	17 and under	Yearly	I live here.	See above	North Adams	Coach	cl	\$50 \$40
12/6/2017 12:06:44	Yes	I would personally use	143-55	Monthly	A few days	Cultural attractions	Stockbridge	Coach	cl	\$70 \$50-75
12/6/2017 12:30:16	Yes	My friends/family and I	43-55	Monthly	I live here and want to live here	Visiting friends and family	North Adams	Coach	cl	not sure
12/6/2017 12:45:26	Yes	I would personally use	18-30	Monthly	I live in the Berkshires	Cultural attractions	North Adams	Coach	cl	\$40
12/6/2017 13:10:34	Yes	I would personally use	131-42	Monthly	A few days	Business	Pittsfield	First class	\$150	\$100-200 per
12/6/2017 13:27:14	Yes	My friends/family and I	43-55	Monthly	A few days	Cultural attractions	Williamstown	Coach	cl	\$50 or drive
12/6/2017 14:53:42	Yes	My friends/family and I	56-64	Weekly	More than a week	Visiting friends and family	West Stockbridge	Coach	cl	Unkn
12/6/2017 15:22:03	Yes	My friends/family and I	31-42	Weekly	A week	work	Pittsfield	Coach	cl	\$40 or buy a 10
12/6/2017 15:43:34	Yes	My friends/family and I	43-55	Monthly	I live in the Berkshires	shopping & business	NYC	Coach	cl	\$150 or \$75 to NYC
12/6/2017 15:48:22	Yes	I would personally use	18-30	Monthly	More than a week	Hiking/camping/fishing	Pittsfield	Coach	cl	\$18
12/6/2017 16:00:10	Yes	My friends/family and I	18-30	Weekly	More than a week	Cultural attractions	Pittsfield	Coach	cl	20
12/6/2017 16:39:30	Yes	My friends/family and I	43-55	Monthly	A few days	Second Homeowner	Stockbridge	Coach	cl	\$75 or Gas
12/6/2017 17:46:43	Yes	I would personally use	131-42	Monthly	More than a week	Work at cultural attractions	Lenox	Coach	cl	\$10 \$20 one way
12/6/2017 18:38:28	Yes	I would personally use	143-55	Monthly	A week	Work	Lenox	Coach	cl	\$100 \$45-\$65
12/6/2017 18:57:14	Yes	My friends/family and I	31-42	Monthly	A few days	Cultural attractions	Lenox	Coach	cl	Extra
12/6/2017 20:56:08	Yes	My friends/family and I	31-42	Yearly	I live in the Berkshires	I live in the Berkshires	North Adams	Coach	cl	\$25 N/A
12/6/2017 21:13:28	Yes	I would personally use	131-42	Monthly	More than a week	Cultural attractions	Pittsfield	Coach	cl	40
12/6/2017 22:19:10	Yes	My friends/family and I	65+	Yearly	More than a week	Home	Stockbridge	Business	4 hours	Car
12/6/2017 22:32:42	Yes	My friends/family and I	31-42	Monthly	Live here	Visiting city	Lenox	Coach	cl	100 Don't
12/6/2017 22:54:53	Yes	I would not use this service but I know people that would.								\$100
12/6/2017 23:09:02	Yes	I would personally use	18-30	Yearly	More than a week	Work	Pittsfield	Coach	cl	40
12/7/2017 8:02:40	Yes	My friends/family and I	65+	Monthly	More than a week	Cultural attractions	Stockbridge	Coach	cl	\$20 \$60 each way
12/7/2017 8:34:52	Yes	I would personally use	131-42	Weekly	A few days	I own a business	Lenox	Business	\$100	varies
12/7/2017 8:58:07	Yes	I would personally use	131-42	Weekly	I live here and would live here	Cultural attractions	Pittsfield	Coach	cl	Unsure drive.
12/7/2017 9:21:20	Yes	I would personally use	143-55	Monthly	A few days	Cultural attractions	Williamstown	Coach	cl	50
12/7/2017 10:33:01	Yes	I would personally use	131-42	Yearly	A few days	Visiting friends and family	Pittsfield	Coach	cl	\$30 per
12/7/2017 10:39:58	Yes	I would personally use	18-30	Monthly	A few days	Skiing/snowboarding	North Adams	Business	30s	\$40 No
12/7/2017 11:10:33	Yes	My friends/family and I	18-30	Yearly	More than a week	Skiing/snowboarding	North Adams	First class	#####	\$20 No
12/7/2017 12:17:11	No	I would not use this service but I know people that would.								unknown

12/7/2017 12:21:17	Yes	My friends/family and I	31-42	Yearly	A week	Visiting friends and friends	Pittsfield	Coach	cl:####	\$30.00	No	Asian	Less than \$30,000
12/7/2017 12:33:55	Yes	I would not use this service but I know people that would.		Yearly	I live in the Berkshir	I live in the Berkshir	North Adams	Coach	cl:####	\$40 on gas	No	White	\$150,000 to \$200,000
12/7/2017 13:34:14	Yes	I would personally use	131-42	Yearly	I live in the Berkshir	I live in the Berkshir	North Adams	Coach	cl:####	between \$40	No	White	\$70,000 to \$100,000
12/7/2017 15:26:05	Yes	My friends/family and I	18-30	Monthly	Live there	Live there	Pittsfield	Coach	cl: 40	N/A	No	Asian	\$30,000 to \$70,000
12/7/2017 15:26:25	Yes	My friends/family and I	43-55	Weekly	A few days	Cultural attractions	North Adams	Coach	cl: 100	to Car, hard to	No	White	\$100,000 to \$150,000
12/7/2017 15:27:54	Yes	My friends/family and I	65+	Monthly	A few days	Visiting friends and friends	North Adams	Coach	cl: \$7.00	\$60.00	No	White	\$70,000 to \$100,000
12/7/2017 18:49:45	Yes	My friends/family and I	65+	Monthly	I live in the Berkshir	I live here	Lanesborough	Coach	cl: \$55	I live here	No	White	\$150,000 to \$200,000
12/7/2017 19:49:13	Yes	I would personally use	156-64	Yearly	Resident	Visiting friends and friends	Williamstown	Coach	cl: \$35		No	White	\$30,000 to \$70,000
12/7/2017 20:33:11	Yes	I would personally use	131-42	Monthly	More than a week	Live here, would take	North Adams	Coach	cl: \$40	\$30	No	White	\$30,000 to \$70,000
12/7/2017 21:08:18	Yes	My friends/family and I	43-55	Yearly	Would use to go to	See above	NYC	Coach	cl: \$30-cl: \$25ish	1-way	No	White	\$70,000 to \$100,000
12/7/2017 21:51:43	Yes	My friends/family and I	65+	Monthly	I live in the Berkshir	I would visit NYC for	Lenox	Business	Not su	\$50? rt	No	White	\$30,000 to \$70,000
12/7/2017 22:24:35	Yes	I would personally use	118-30	Weekly	A few days	Visiting friends and friends	Great Barringt	Coach	cl: 0	\$200 or more	No	White	\$30,000 to \$70,000
12/7/2017 23:31:20	Yes	My friends/family and I	31-42	Yearly	A few days	Visiting friends and friends	Great Barringt	Business	I don't	-\$50 (gas & No	No	White	\$100,000 to \$150,000
12/8/2017 4:45:03	Yes	I would personally use	143-55	Yearly	A week	Cultural attractions	North Adams	Coach	cl: 50	42	No	White	\$70,000 to \$100,000
12/8/2017 6:15:18	Yes	I would not use this service but I know people that would.								I live in the b	No	White	More than \$200,000
12/8/2017 7:24:22	Yes	I would personally use	118-30	Weekly	A few days	Visiting friends and friends	Great Barringt	Coach	cl: 50	0 \$200 or more	No	White	\$30,000 to \$70,000
12/8/2017 8:46:25	Yes	My friends/family and I	31-42	Monthly	More than a week	Cultural attractions	Lenox	Coach	cl: \$20	I live here.	Visit nyc on me	White	\$100,000 to \$150,000
12/8/2017 10:31:20	Yes	My friends/family and I	43-55	Monthly	I live here	Visiting friends and friends	Lee	Coach	cl: \$30	\$80	No	White	\$70,000 to \$100,000
12/8/2017 10:34:11	Yes	I would personally use	131-42	Yearly	A week	Cultural attractions	Lee	Coach	cl: \$50	doll/N/A	No	White	\$30,000 to \$70,000
12/8/2017 11:00:18	Yes	I would personally use	143-55	Monthly	More than a week	Visiting friends and friends	Pittsfield	Coach	cl: Any ar?		No	White	Less than \$30,000
12/8/2017 13:39:20	Yes	I would personally use	143-55	Monthly	More than a week	Visiting friends and friends	Williamstown	Coach	cl: 30	I don't, I live	No	White	\$100,000 to \$150,000
12/8/2017 16:49:09	Yes	I would personally use	156-64	Yearly	I live in the Berkshir	I live here	Williamstown	Coach	cl: \$20	\$120 for a day trip	destina	Less than \$30,000	
12/8/2017 18:11:52	Yes	I would personally use	143-55	Yearly	I would be departing	Visiting friends and friends	North Adams	Coach	cl: 25	24	No	Asian	\$100,000 to \$150,000
12/8/2017 19:56:56	Yes	My friends/family and I	31-42	Weekly	A few days	Visiting friends and friends	West Stockbr	Coach	cl: 80	I usually drw	No	White	\$70,000 to \$100,000
12/8/2017 20:15:39	Yes	My friends/family and I	31-42	Monthly	I live here, but used	Live here	Great Barringt	Coach	cl: I'd pay	\$30?	Yes	White	Less than \$30,000
12/8/2017 20:22:35	Yes	I would personally use	118-30	Monthly	I live here	I live here.	Housatonic.	Coach	cl: 30?	35?	No	White	Less than \$30,000
12/8/2017 20:25:50	Yes	My friends/family and I	18-30	Monthly	I live here.	Libing	Huntington	Coach	cl: First clas	I don't I drive	No	White	More than \$200,000
12/8/2017 6:02:22	Yes	My friends/family and I	56-64	Monthly	More than a week	Visiting friends and friends	Lanesboro	Coach	cl: \$50	Live here	No	White	\$30,000 to \$70,000
12/9/2017 6:52:36	Yes	I would personally use	165+	Monthly	Live here	Cultural attractions	Becket	Coach	cl: \$60	I drive	No	White	Less than \$30,000
12/9/2017 12:29:10	Yes	My friends/family and I	18-30	Yearly	A few days	Cultural attractions	Lenox	Business	cl: 50	?	No	White	More than \$200,000
12/9/2017 17:39:07	Yes	My friends/family and I	43-55	Monthly	More than a week	Hiking/camping/fishir	Cummington	Coach	cl: 20	Gas	No	White	\$100,000 to \$150,000
12/9/2017 17:40:30	Yes	I would personally use	143-55	Monthly	A few days	Cultural attractions	Lee	Coach	cl: \$15	\$109	No	White	More than \$200,000
12/9/2017 17:41:38	Yes	I would personally use	131-42	Monthly	A week	Skating/snowboarding	Great Barringt	Coach	cl: 50	I use car	No	White	\$100,000 to \$150,000
12/9/2017 17:42:16	Yes	I would personally use	131-42	Yearly	A few days	Visiting friends and friends	Great Barringt	Coach	cl: 0	\$40	No	White	\$150,000 to \$200,000
12/9/2017 17:42:56	Yes	I would not use this service but I know people that would.										White	
12/9/2017 17:45:21	Yes	My friends/family and I	43-55	Weekly	A few days	Visiting friends and friends	Great Barringt	Coach	cl: 0	50	No	White	\$70,000 to \$100,000
12/9/2017 17:45:38	Yes	I would personally use	143-55	Yearly	A few days	Hiking/camping/fishir	North Adams	Coach	cl: 25	I don't remen	No	White	More than \$200,000
12/9/2017 17:49:31	Yes	I would personally use	131-42	Monthly	A few days	Visiting friends and friends	Lenox	Coach	cl: Business	\$60 We drive the	No	White	More than \$200,000
12/9/2017 17:51:07	Yes	I would personally use	156-64	Weekly	Every other week	Cultural attractions	Canaan NY	Coach	cl: fifty	doforty dollars	No	White	\$100,000 to \$150,000
12/9/2017 17:53:36	Yes	My friends/family and I	43-55	Monthly	A few days	Visiting friends and friends	Pittsfield	Coach	cl: 50	35	No	White	\$70,000 to \$100,000
12/9/2017 17:55:15	Yes	My friends/family and I	43-55	Monthly	A few days	Cultural attractions	Pittsfield	Coach	cl: \$100	I drive so it's	No	White	\$100,000 to \$150,000
12/9/2017 17:57:34	Yes	I would personally use	131-42	Monthly	A few days	Visiting friends and friends	Williamstown	Coach	cl: Business	Not su	Pay for gas, No	White	\$100,000 to \$150,000
12/9/2017 18:01:43	Yes	My friends/family and I	56-64	Weekly	A few days	Visiting friends and friends	Great Barringt	Business	Not su	Pay for gas, No	White	White	\$100,000 to \$150,000
12/9/2017 18:16:11	Yes	I would personally use	143-55	Monthly	More than a week	2nd home	becket	Coach	cl: \$25	I have car so	No	White	More than \$200,000
12/9/2017 18:19:19	Yes	My friends/family and I	31-42	Weekly	A few days	Visiting friends and friends	Monterey	Coach	cl: 20	Drive	No	White	

12/9/2017 19:18:09	Yes	My friends/family and I	31-42	Yearly	A few days	Cultural attractions	Williamstown	Coach	cl	\$20	\$50-75	No	White	
12/9/2017 19:28:06	Yes	My friends/family and I	43-55	Monthly	More than a week	Hiking/camping/fishir	Great Barrington	Coach	cl	100	40	100	No	\$30,000 to \$70,000
12/9/2017 19:50:10	Yes	My friends/family and I	65+	Monthly	Often whole season	Visiting friends and f	Great Barrington	Coach	cl	\$50	24	40	No	\$100,000 to \$150,000
12/9/2017 19:56:08	Yes	My friends/family and I	31-42	Yearly	A week	Cultural attractions	Hancock	Coach	cl	\$50	50	\$40	No	\$30,000 to \$70,000
12/9/2017 20:06:46	Yes	My friends/family and I	65+	Weekly	More than a week	Cultural attractions	Pittsfield	Coach	cl	\$50	55	?	No	White
12/9/2017 20:07:21	Yes	I would personally use	43-55	Yearly	A week	Cultural attractions	Lee	Coach	cl	\$50	55	?	No	White
12/9/2017 21:10:50	Yes	My friends/family and I	31-42	Yearly	A week	Cultural attractions	Great Barrington	Coach	cl	\$50	50	40	No	\$100,000 to \$150,000
12/9/2017 22:13:12	Yes	My friends/family and I	31-42	Yearly	A week	Cultural attractions	Great Barrington	Coach	cl	\$50	50	40	No	\$100,000 to \$150,000
12/9/2017 22:14:12	Yes	My friends/family and I	31-42	Yearly	A week	Cultural attractions	Great Barrington	Coach	cl	\$50	50	40	No	\$100,000 to \$150,000
12/9/2017 23:12:42	Yes	My friends/family and I	18-30	Monthly	More than a week	Visiting friends and f	Dalton	Coach	cl	\$75	10	80	No	\$30,000 to \$70,000
12/10/2017 0:17:47	Yes	I would personally use	131-42	Monthly	A few days	Visiting friends and f	Dalton	Coach	cl	\$75	10	80	No	White
12/10/2017 0:51:57	Yes	My friends/family and I	18-30	Monthly	More than a week	Visiting friends and f	Dalton	Coach	cl	\$75	10	80	No	White
12/10/2017 0:52:51	Yes	My friends/family and I	18-30	Monthly	More than a week	Visiting friends and f	Dalton	Coach	cl	\$75	10	80	No	White
12/10/2017 7:01:37	Yes	I would personally use	143-55	Monthly	A few days	Visiting friends and f	Canaan	Coach	cl	\$50	50	150	No	\$30,000 to \$70,000
12/10/2017 9:08:27	Yes	My friends/family and I	56-64	Monthly	More than a week	Hiking/camping/fishir	Great Barrington	Coach	cl	\$50	50-75	50	No	\$150,000 to \$200,000
12/10/2017 9:20:17	Yes	My friends/family and I	56-64	Weekly	Commune from ny	Work	Lenox	Business	100-12	Ferry	\$56plus	50	No	More than \$200,000
12/10/2017 9:42:50	Yes	I would personally use	165+	Monthly	A few days	Healthcare / educatic	Lenox	Coach	cl	?	Drive	?	No	\$70,000 to \$100,000
12/10/2017 10:19:25	Yes	My friends/family and I	18-30	Monthly	I live in the Berkshir	I live in the Berkshir	Great Barrington	Coach	cl	25	N/A	?	No	Less than \$30,000
12/10/2017 10:43:04	Yes	I would personally use	143-55	Yearly	live here	Hiking/camping/fishir	Williamstown	Business	90	I drive	?	?	No	\$100,000 to \$150,000
12/10/2017 11:42:18	Yes	My friends/family and I	56-64	Monthly	More than a week	Visiting friends and f	Lenox	Coach	cl	\$30	10	10	No	\$70,000 to \$100,000
12/10/2017 12:28:04	Yes	My friends/family and I	31-42	Monthly	A few days	Visiting friends and f	Pittsfield	Coach	cl	\$50	50	40	No	Asian
12/10/2017 14:04:46	Yes	I would personally use	143-55	Weekly	A few days	Hiking/camping/fishir	Lenox	Coach	cl	50	50	40	No	\$30,000 to \$70,000
12/10/2017 15:44:24	Yes	I would personally use	156-64	Monthly	I live there	I live there	Monterey	Coach	cl	3	hour	None	?	More than \$200,000
12/10/2017 18:43:33	Yes	My friends/family and I	65+	Weekly	More than a week	Cultural attractions	Pittsfield	Coach	cl	\$50	50	40	No	White
12/10/2017 19:45:53	Yes	My friends/family and I	31-42	Monthly	A few days	Cultural attractions	North Adams	Coach	cl	\$75	110	15	No	White
12/10/2017 20:15:59	Yes	My friends/family and I	43-55	Weekly	More than a week	Cultural attractions	Stockbridge	Coach	cl	110	15	50	No	White
12/10/2017 20:48:05	Yes	My friends/family and I	56-64	Monthly	A few days	Cultural attractions	Lenox	Coach	cl	20	20	60	No	White
12/10/2017 22:26:34	Yes	My friends/family and I	56-64	Monthly	A few days	Visiting friends and f	Great Barrington	Coach	cl	\$20	20	60	No	White
12/10/2017 22:29:20	Yes	My friends/family and I	56-64	Monthly	A few days	Visiting friends and f	Great Barrington	Coach	cl	\$20	20	60	No	White
12/11/2017 7:54:59	Yes	I would personally use	165+	Monthly	More than a week	Visiting friends and f	Pittsfield	Business	0	0	5	No	White	\$30,000 to \$70,000
12/11/2017 13:11:40	Yes	My friends/family and I	43-55	Monthly	I live in the Berkshir	I would be visiting N	North Adams	Coach	cl	\$50	\$40	?	No	\$70,000 to \$100,000
12/11/2017 13:40:30	Yes	My friends/family and I	43-55	Monthly	A few days	Own a vacation home	North Adams	Coach	cl	\$150	Drive	?	No	More than \$200,000
12/11/2017 15:19:38	Yes	My friends/family and I	56-64	Monthly	A few days	second home	west stockbrid	Coach	cl	\$35	cost of gas	?	No	More than \$200,000
12/11/2017 20:00:09	Yes	My friends/family and I	31-42	Yearly	I live here.	Cultural attractions	North Adams	Business	\$50?	?	?	?	No	\$70,000 to \$100,000
12/11/2017 21:15:30	Yes	I would personally use	131-42	Yearly	A few days	Cultural attractions	North Adams	Coach	cl	\$20	not sure	?	No	\$150,000 to \$200,000
12/12/2017 7:16:05	Yes	My friends/family and I	31-42	Monthly	Live here/family in	Visiting friends and f	North Adams	Coach	cl	\$30	I live here	?	No	\$30,000 to \$70,000
12/12/2017 8:50:35	Yes	My friends/family and I	18-30	Yearly	A week	Visiting friends and f	North Adams	Coach	cl	\$60	\$45	?	No	White
12/12/2017 10:09:31	Yes	I would personally use	143-55	Yearly	A few days	Golf	Pittsfield	Business	15	10,000	No	?	No	More than \$200,000
12/12/2017 11:04:00	Yes	I would personally use	131-42	Monthly	A week	work	Pittsfield	Coach	cl	500	1000	?	No	\$70,000 to \$100,000
12/12/2017 13:48:22	Yes	I would personally use	118-30	Monthly	I live here	Visiting friends and f	North Adams	Coach	cl	40	15	?	No	Less than \$30,000
12/12/2017 14:01:06	Yes	I would personally use	118-30	Yearly	I live in the Berkshir	I live here	Williamstown	Coach	cl	don't k	\$35-50	?	No	\$30,000 to \$70,000
12/12/2017 14:01:47	Yes	I would personally use	131-42	Monthly	Live here	Live here, would visit	Williamstown	Coach	cl	\$10	ex	N/A	No	White
12/12/2017 14:17:06	Yes	I would personally use	118-30	Yearly	I live there	I live there	North Adams	Business	?	?	?	?	No	Less than \$30,000
12/12/2017 14:19:42	Yes	My friends/family and I	43-55	Yearly	A few days	Cultural attractions	North Adams	Business	25	100	?	?	No	\$30,000 to \$70,000
12/12/2017 14:20:36	Yes	I would personally use	118-30	Monthly	A few days	Visiting friends and f	Lanesboro	Coach	cl	An ad	Around	\$250	No	Jewish

I would personally use 118-30	Yearly	Resident of the Berk	Adams	Coach cli	30 N/A	No	No	\$30,000 to \$70,000
My friends/family and I -18-30	Yearly	I live here, I would vi	I live here, I would vi	Coach cli	The su	live here	No	White
I would not use this service but I know people that would.							\$100 No	White
My friends/family and I -56-64	Yearly	A few days	Cultural attractions	Coach cli	40 Gas and m	ike	No	White
I would personally use 143-55	Yearly	I live here.	I live here.	Coach cli	30 I live here.		No	White
I would personally use 131-42	Monthly	A few days	Cultural attractions	Coach cli	59	0		
My friends/family and I -43-55	Monthly	A few days	All of the above	Williamstown Business	\$25 Varies		No	White
My friends/family and I -18-30	Monthly	A few days	Cultural attractions	North Adams Coach cli	\$-50 c		No	Asian
My friends/family and I -31-42	Weekly	I live here mostly an	I live here	Great Barrin	g Coach cli	30 th	1200	
I would personally use 131-42	Monthly	I live here	Cultural attractions	Williamstown Coach cli	\$75 r/a		No	White
I would personally use 143-55	Yearly	A few days	Cultural attractions	North Adams Coach cli	\$10 Drive		No	White
I would personally use 131-42	Monthly	A few days	Cultural attractions	North Adams Coach cli	100	50 No	White	More than \$200,000
I would not use this service but I know people that would.						\$5.00 No	White	\$70,000 to \$100,000
My friends/family and I -66+	Yearly	A few days	Cultural attractions	Williamstown Coach cli	20	50		
I would personally use 143-55	Yearly	A few days	Cultural attractions	North Adams Business	25	100 No	White	\$100,000 to \$150,000
My friends/family and I -43-55	Monthly	A few days	Cultural attractions	North Adams Business	150 I drive	No	White	\$100,000 to \$150,000
I would personally use 143-55	Yearly	A week	Skiing/snowboarding Hancock	First class	50	100 Yes	Hispanic	More than \$200,000
My friends/family and I -18-30	Yearly	A few days	Cultural attractions	North Adams Coach cli	100	160 No	White	\$100,000 to \$150,000
I would personally use 166+	Monthly	I live here	Live here	Lenox Coach cli	20	50 No	White	\$30,000 to \$70,000
I would personally use 131-42	Yearly	A single day	Cultural attractions	Williamstown Coach cli	\$30	\$15 No	White	\$70,000 to \$100,000
I would personally use 143-55	Monthly	A few days	Cultural attractions	North Adams Business	10	50 No	White	\$70,000 to \$100,000
I would not use this service but I know people that would.						\$0		
I would not use this service and I do not know anyone that would.					zero	No		Less than \$30,000
My friends/family and I -31-42	Yearly	I live in the Berkshir	I would be visiting N	NYC Coach cli	\$20 ac	0		
I would personally use 143-55	Monthly	A few days	Cultural attractions	North Adams Coach cli	\$60	\$50 No	White	\$150,000 to \$200,000
I would not use this service but I know people that would.						\$60		
My friends/family and I -56-64	Monthly	More than a week	Cultural attractions	North Adams Coach cli	\$60 eac	Varies		
My friends/family and I -56-64	Monthly	More than a week	Cultural attractions	North Adams Coach cli	\$60 eac	Varies		
I would not use this service but I know people that would.								
I would not use this service but I know people that would.						\$25 No	White	\$70,000 to \$100,000
I would personally use 131-42	Monthly	A few days	Hiking/camping/fishir	Great Barrin	g Coach cli	not sui	60 No	White
My friends/family and I -31-42	Monthly	I live here, but visit	Cultural attractions	Williamstown Coach cli	60 \$144 roundtr	No	Asian	\$100,000 to \$150,000
My friends/family and I -43-55	Yearly	More than a week	Hiking/camping/fishir	Adams Coach cli	40	35 No	White	\$70,000 to \$100,000
My friends/family and I -43-55	Monthly	A few days	Visiting friends and f	Lenox Coach cli	??	We usually drive.		\$70,000 to \$100,000
I would personally use 131-42	Monthly	A few days	Visiting friends and f	Lanesboro Coach cli	\$50	\$34 No	White	\$100,000 to \$150,000
My friends/family and I -31-42	Yearly	A week	Visiting friends and f	North Adams Coach cli	30 5.00 gas	No	White	\$70,000 to \$100,000
I would personally use 143-55	Yearly	I live Here	Cultural attractions	North Adams Business	14k	20-40\$	No	Less than \$30,000
My friends/family and I -31-42	Yearly	A few days	Cultural attractions	North Adams Business	150	75 No	White	\$100,000 to \$150,000
I would personally use 156-64	Monthly	A few days	Visiting friends and f	Williamstown Coach cli	Don't \$25-50 each	No	White	\$150,000 to \$200,000
My friends/family and I -66+	Monthly	A few days	Cultural attractions	Williamstown Coach cli	20	0		
I would personally use 131-42	Monthly	I live here.	Cultural attractions	North Adams Coach cli	\$75	\$30 No	White	\$150,000 to \$200,000
My friends/family and I -43-55	Monthly	A few days	It's my home.	North Adams Coach cli	\$5	\$50 No	White	Less than \$30,000
I would not use this service but I know people that would.								
I would personally use 131-42	Yearly	I live here	Cultural attractions	Williamstown Coach cli	\$20 ex	I drive \$20	No	White
I would not use this service but I know people that would.								
My friends/family and I -31-42	Yearly	I live here	Lenox Coach cli	\$50		\$16 No	White	\$70,000 to \$100,000

12/13/2017 13:04:14	Yes	I would personally use it 43-55	Monthly	Live in the Berkshires	Live in the Berkshires	Dalton	Business	70 I live in the Berkshires	White	Less than \$30,000
12/13/2017 13:52:41	Yes	I would personally use it 18-30	Monthly	More than a week	Visiting friends and family	Pittsfield	Business	40 dollars	No	\$30,000 to \$70,000
12/13/2017 14:14:08	Yes	My friends/family and I 18-30	Monthly	A few days	Visiting friends and family	Pittsfield	Coach	Cost of gas money depending on how full my tank is	White	\$100,000 to \$150,000
12/13/2017 14:23:24	Yes	I would personally use it 31-42	Monthly	More than a week	Cultural attractions	North Adams	Coach	40	100 No	More than \$200,000
12/13/2017 15:08:03	Yes	My friends/family and I 65+	Monthly	A few days	All of the above, plus New Lebanon	Business	Business	\$50 Cost of main No	White	\$150,000 to \$200,000
12/13/2017 16:11:15	Yes	My friends/family and I 65+	Monthly	Live in the Berkshires	Would use to visit the	Williamstown	Coach	\$10 on N/A	No	\$100,000 to \$150,000
12/13/2017 19:06:38	Yes	I would personally use it 18-30	Monthly	A few days	Cultural attractions	Lenox	Coach	15	\$40 No	\$30,000 to \$70,000
12/13/2017 22:18:10	Yes	My friends/family and I 56-64	Yearly	moving to the berkshires	Cultural attractions	North Adams	Coach	Coach cl: \$25-35	No	\$30,000 to \$70,000
12/14/2017 9:04:30	Yes	My friends/family and I 56-64	Yearly	I live here and would live here	Cultural attractions	Pownal	Vermont	Coach cl: \$75 on	From ALB to No	\$30,000 to \$70,000
12/14/2017 14:47:12	Yes	I would personally use it 31-42	Monthly	A few days	Cultural attractions	Lenox	Coach	cl: I am c Too much-	\$ No	\$30,000 to \$70,000
12/14/2017 16:48:52	Yes	My friends/family and I 56-64	Monthly	A few days	Cultural attractions	Lenox	Coach	cl: 20 doll\$30 dollars	No	\$100,000 to \$150,000
12/14/2017 17:18:39	Yes	I would personally use it 65+	Monthly	More than a week	Cultural attractions	Lenox	Coach	cl: \$30	\$25 No	More than \$200,000
12/14/2017 17:19:52	Yes	My friends/family and I 65+	Monthly	More than a week	Visiting friends and family	Chatham ny	Coach	cl: \$60.00	Amtrak to H, No	\$30,000 to \$70,000
12/14/2017 17:24:48	Yes	I would personally use it 65+	Monthly	A few days	Visiting friends and family	Williamstown	Business	60 doll	120 No	\$30,000 to \$70,000
12/14/2017 17:28:14	Yes	My friends/family and I 65+	Monthly	A week	Cultural attractions	Austerlitz/West	Business	100	130 miles@ No	More than \$200,000
12/14/2017 17:29:20	Yes	I would not use this service but I know people that would.	Monthly	A week	Visiting friends and family	Pittsfield	Coach	cl: \$60	Nothing No	\$30,000 to \$70,000
12/14/2017 17:30:56	Yes	My friends/family and I 65+	Monthly	A week	Visiting friends and family	Pittsfield	Coach	cl: 50	Depends if A No	\$70,000 to \$100,000
12/14/2017 17:36:13	Yes	My friends/family and I 65+	Yearly	I live here....	I live here	Sheffield	Coach	cl: #####	\$0.00 No	\$30,000 to \$70,000
12/14/2017 17:37:29	Yes	My friends/family and I 65+	Yearly	I live in the Berkshires	I live in the Berkshires	Lenox	First class	\$50	18 No	More than \$200,000
12/14/2017 17:45:09	Yes	I would personally use it 65+	Yearly	We have vacation h	Cultural attractions	Stockbridge	Coach	cl: #####	1/4 of a tank No	More than \$200,000
12/14/2017 18:01:18	Yes	My friends/family and I 43-55	Monthly	Six months a year	I use it to get from the	Stockbridge	Coach	cl: \$40	\$40-60 each way	\$150,000 to \$200,000
12/14/2017 18:23:23	Yes	My friends/family and I 43-55	Monthly	A few days	Cultural attractions	Stockbridge	Coach	cl: #####	\$100 Round No	More than \$200,000
12/14/2017 18:33:25	Yes	I would personally use it 56-64	Weekly	A few days	Cultural attractions	Lenox	Coach	cl: \$25	\$30 No	Less than \$30,000
12/14/2017 18:35:03	Yes	I would personally use it 43-55	Weekly	More than a week	work	Great Barrington	Coach	cl: 20	~100 roundtrip on the bus	\$100,000 to \$150,000
12/14/2017 18:36:44	Yes	I would personally use it 18-30	Yearly	A few days	Visiting friends and family	Lenox	Coach	cl: \$50 each	Expensive c: No	White
12/14/2017 18:51:04	Yes	I would not use this service but I know people that would.	Yearly	A few days	Visiting friends and family	Lenox	Coach	cl: \$50 each	Driving, so r: No	White
12/14/2017 18:58:37	Yes	My friends/family and I 31-42	Weekly	I am full time berkshires	I live here	West Stockbridge	Business	\$50	\$17 No	Asian
12/14/2017 19:16:49	Yes	My friends/family and I 31-42	Monthly	A week	Cultural attractions	Lenox	Coach	cl: 4 hour Train	No	White
12/14/2017 19:34:00	Yes	My friends/family and I 43-55	Yearly	A single day	Cultural attractions	Great Barrington	Coach	cl: 50 I drive	White	\$70,000 to \$100,000
12/14/2017 19:38:47	Yes	My friends/family and I 65+	Monthly	A week	Visiting friends and family	Pittsfield	Business	50	90 roundtrip	White
12/14/2017 19:44:40	Yes	My friends/family and I 65+	Monthly	I live here with friends	Visiting friends and family	Pittsfield	Coach	cl: \$25	\$60 No	White
12/14/2017 20:04:31	Yes	I would personally use it 65+	Monthly	I live in Berkshires	Resident	Great Barrington	Coach	cl: 10 each	senior fare fr No	\$30,000 to \$70,000
12/14/2017 20:30:03	Yes	My friends/family and I 43-55	Yearly	A few days	Cultural attractions	Lenox	Coach	cl: 50	100 No	White
12/14/2017 20:41:57	Yes	My friends/family and I 43-55	Monthly	More than a week	Visiting friends and family	Stockbridge	Business	40	20 No	White
12/14/2017 21:08:15	Yes	I would personally use it 65+	Yearly	I live in the Berkshires	I would be visiting Ne	Stockbridge	Business	I don't	drive to NY No	White
12/14/2017 21:26:42	Yes	I would personally use it 65+	Monthly	I am a year-round r: I live here	I live here	West Stockbridge	Coach	cl: #####	Senior off-pe No	White
12/14/2017 21:42:17	Yes	I would personally use it 65+	Yearly	Too visit more often	Cultural attractions	Lenox	Business	What we pay in bl: No	White	\$150,000 to \$200,000
12/14/2017 22:15:33	Yes	I would personally use it 65+	Monthly	I live here year round	I live here for the nat: West	Stockbridge	Coach	cl: not sui	0 No	White
12/14/2017 22:35:04	Yes	My friends/family and I 65+	Monthly	I live here year round	I would use the service	Lenox	Coach	cl: I now \$24	senior r: Yes	White
12/14/2017 23:47:28	Yes	I would not use this service but I know people that would.	Weekly	A few days	Visiting friends and family	Lenox	Coach	cl: A lot.	Gasoline any No	More than \$200,000
12/15/2017 1:43:57	Yes	My friends/family and I 65+	Monthly	I live here	I live here	Pittsfield	Coach	cl: \$10	I live here No	White
12/15/2017 7:16:38	Yes	I would personally use it 31-42	Monthly	I live in the Berkshires	Cultural attractions	Pittsfield	Coach	cl: \$40	I live here No	\$100,000 to \$150,000
12/15/2017 9:09:23	Yes	My friends/family and I 56-64	Monthly	I live in the Berkshires	I am currently a full ti	Pittsfield	Coach	cl: \$35	\$25.00	White
12/15/2017 9:12:58	Yes									

12/15/2017 9:35:55	Yes	My friends/family and I '56-64	Yearly	More than a week	Visiting friends and friends	Business	\$50 Gas for car.	No	White	More than \$200,000		
12/15/2017 9:41:22	Yes	My friends/family and I '65+	Monthly	I live in Pittsfield	I live here	Coach d/ The gc drive		No	White			
12/15/2017 10:22:10	Yes	I would personally use '65+	Monthly	I live here	Skating/snowboarding	Coach d/ 105		35 No	White	More than \$200,000		
12/15/2017 10:45:36	Yes	My friends/family and I '56-64	Yearly	365 days a year	Cultural attractions	Coach d/ 120		50 No	White	\$150,000 to \$200,000		
12/15/2017 10:53:42	Yes	My friends/family and I '43-55	Monthly	Months	Cultural attractions	Coach d/ 355 Gas & tolls			White			
12/15/2017 10:58:31	Yes	My friends/family and I '65+	Yearly	A week	Cultural attractions	Coach d/ Not su	Drove my car	No	White	\$150,000 to \$200,000		
12/15/2017 11:13:40	Yes	My friends/family and I '65+	Yearly	More than a week	second home	Coach d/ Since, ?		No	White	\$70,000 to \$100,000		
12/15/2017 12:06:21	Yes	My friends/family and I '31-42	Monthly	A few days	Pittsfield is my home	Coach d/ \$15		\$40 No	White,	\$30,000 to \$70,000		
12/15/2017 12:07:45	Yes	I would personally use '65+	Yearly	More than a week	Second home	Coach d/ I don't	\$35.00 No	No	White	\$70,000 to \$100,000		
12/15/2017 14:00:06	Yes	I would personally use '18-30	Monthly	A few days	Visiting friends and friends	Coach d/ \$30	Between \$15	No	White	\$100,000 to \$150,000		
12/15/2017 14:00:27	Yes	My friends/family and I '31-42	Yearly	A few days	Cultural attractions	Coach d/ \$50 or Less than \$10	(I c	White	White	\$100,000 to \$150,000		
12/15/2017 14:03:48	Yes	My friends/family and I '56-64	Monthly	Full time resident	I live here	Coach d/ \$35	\$32 No	White	White	\$150,000 to \$200,000		
12/15/2017 14:05:06	Yes	My friends/family and I '31-42	Weekly	More than a week	Cultural attractions	Coach d/ \$100	\$50 No	White,	White,	\$30,000 to \$70,000		
12/15/2017 14:17:19	Yes	My friends/family and I '18-30	Monthly	A week	Cultural attractions	Coach d/ \$10	\$40 No	White	White	Less than \$30,000		
12/15/2017 14:24:56	Yes	I would personally use '18-30	Yearly	A single day	Cultural attractions	Coach d/ \$20	\$100 No	White	White	\$30,000 to \$70,000		
12/15/2017 14:27:11	Yes	I would personally use '43-55	Monthly	More than a week	Cultural attractions	Coach d/ 45	100 No	White	White	\$30,000 to \$70,000		
12/15/2017 14:40:10	Yes	My friends/family and I '18-30	Monthly	A few days	Cultural attractions	Business	\$75	\$30 No	White	\$30,000 to \$70,000		
12/15/2017 16:23:44	Yes	I would personally use '18-30	Monthly	More than a week	Cultural attractions	Coach d/ \$20	Unknown		White			
12/15/2017 16:56:25	Yes	My friends/family and I '18-30	Yearly	More than a week	Cultural attractions	Coach d/ \$70	\$80 No	White	White	\$150,000 to \$200,000		
12/15/2017 17:23:36	Yes	My friends/family and I '43-55	Monthly	More than a week	Cultural attractions	Coach d/ ???	I rent a car.	No	White	\$30,000 to \$70,000		
12/15/2017 17:46:58	Yes	My friends/family and I '31-42	Monthly	I live in the Berkshir	I live in the Berkshir	Coach d/ One	Ma	about \$50 to	No	White		
12/15/2017 18:13:56	Yes	I would personally use '18-30	Monthly	A week	Cultural attractions	Coach d/ 305	\$15 No	White	White	\$30,000 to \$70,000		
12/15/2017 18:19:21	Yes	I would personally use '31-42	Yearly	I live in the Berkshir	I live here	Coach d/ \$40	It's expensive	No	White	\$30,000 to \$70,000		
12/15/2017 18:42:01	Yes	I would personally use '17 and under										
12/15/2017 19:19:16	Yes	I would personally use '43-55	Monthly	I live here.	I live here.	Coach d/ \$60		0 No	Human	Less than \$30,000		
12/15/2017 19:40:46	Yes	My friends/family and I '18-30	Monthly	A single day	Visiting friends and friends	Coach d/ n/a		100 No	Asian	\$100,000 to \$150,000		
12/15/2017 19:47:51	Yes	My friends/family and I '56-64	Yearly	I live here	my home	Coach d/ \$35	round	tr	No	White	\$30,000 to \$70,000	
12/15/2017 20:34:09	Yes	I would personally use '17 and under										
12/15/2017 20:49:31	Yes	I would personally use '17 and under										
12/15/2017 20:50:03	Yes	I would personally use '17 and under										
12/15/2017 20:50:25	Yes	I would personally use '17 and under										
12/15/2017 21:47:24	Yes	I would personally use '56-64	Monthly	More than a week	Visiting friends and friends	Coach d/ 40	30	N/a		\$30,000 to \$70,000		
12/15/2017 22:06:09	Yes	I would personally use '31-42	Yearly	A single day	Cultural attractions	Coach d/ \$40	\$300 No	White	White	More than \$200,000		
12/15/2017 22:12:59	Yes	I would personally use '65+	Yearly	A week	Cultural attractions	Coach d/ 200	ro	100 round	tr	No	White	\$70,000 to \$100,000
12/15/2017 22:15:08	Yes	My friends/family and I '65+	Monthly	I live in the Berkshir	Cultural attractions	Coach d/ \$50	\$25 to go to	No	White	\$100,000 to \$150,000		
12/16/2017 4:31:29	Yes	I would personally use '31-42	Yearly	A week	Cultural attractions	Coach d/ \$3.00	\$41.00	round	No	White	\$30,000 to \$70,000	
12/16/2017 5:58:11	Yes	My friends/family and I '43-55	Yearly	I live here	I live here	Coach d/ \$50	50 No	White	White	\$100,000 to \$150,000		
12/16/2017 7:14:26	Yes	I would personally use '56-64	Weekly	A few days	Cultural attractions	Coach d/ \$40	\$17 No	White	White	\$100,000 to \$150,000		
12/16/2017 7:40:55	Yes	I would personally use '18-30	Monthly	I live here	Cultural attractions	Business	60	0 No	Black or	Less than \$30,000		
12/16/2017 9:12:53	Yes	My friends/family and I '43-55	Monthly	A few days	Cultural attractions	Coach d/ \$50	\$50 No	White	White	\$70,000 to \$100,000		
12/16/2017 11:08:30	Yes	My friends/family and I '43-55	Monthly	I live here	I live here	Coach d/ No	ide	\$26 one way	No	White	\$70,000 to \$100,000	
12/16/2017 14:48:30	Yes	I would personally use '65+	Monthly	More than a week	I live in Pittsfield and friends	Coach d/ I would	pay senior	in	No	White	\$70,000 to \$100,000	
12/16/2017 16:06:23	Yes	I would personally use '43-55	Monthly	A few days	Visiting friends and friends	Coach d/ 70	65 No	White	White	Less than \$30,000		
12/16/2017 19:51:06	Yes	My friends/family and I '43-55	Monthly	A few days	Cultural attractions	Coach d/ \$50	\$50 No	White	White	\$70,000 to \$100,000		
12/16/2017 20:19:55	Yes	My friends/family and I '43-55	Monthly	A few days	Cultural attractions	Coach d/ \$50	\$50 No	White	White	\$70,000 to \$100,000		

12/17/2017 4:36:47	Yes	My friends/family and I	31-42	Yearly	A week	Hiking/camping/fishin	Lenox	Coach clk	100	20 No	White	\$100,000 to \$150,000
12/17/2017 9:35:19	Yes	My friends/family and I	65+	Monthly	More than a week	Cultural attractions	Lenox	First clas	\$40	\$25 No	White	More than \$200,000
12/17/2017 17:24:55	Yes	My friends/family and I	65+	Monthly	I live in the Birkshire	Visit family in NYC	Lenox	Business Ten	cl use a drive	No	White	\$70,000 to \$100,000
12/17/2017 21:13:43	Yes	My friends/family and I	31-42	Monthly	Live here	Hiking/camping/fishin	Great Barringt	Coach clk	\$40	\$36 No	White	
12/18/2017 0:34:20	Yes	I would personally use	18-30	Yearly	More than a week	Visiting friends and f	Williamstown	Coach clk	To sav	0 No	White	\$100,000 to \$150,000

Appendix F: Statistical Analysis of Data

Results showed that only household total income has a statistically significant impact on whether a respondent would ride alone or with family (household income was found to account for more than 62.4% of original data).

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	4.002	1	.045
	Block	4.002	1	.045
	Model	4.002	1	.045

Chi-square test with a significance level of 0.05 for household total income is 4.002 and exceeds critical value 3.84. The p-value in this test is 0.045 which is below 0.05, indicating that our findings were statistically significant.

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	OPTIONALWhatisyourhouseholdtotalincome	-.222	.117	3.600	1	.058	.801
	Constant	.831	.401	4.307	1	.038	2.296

a. Variable(s) entered on step 1: OPTIONALWhatisyourhouseholdtotalincome.

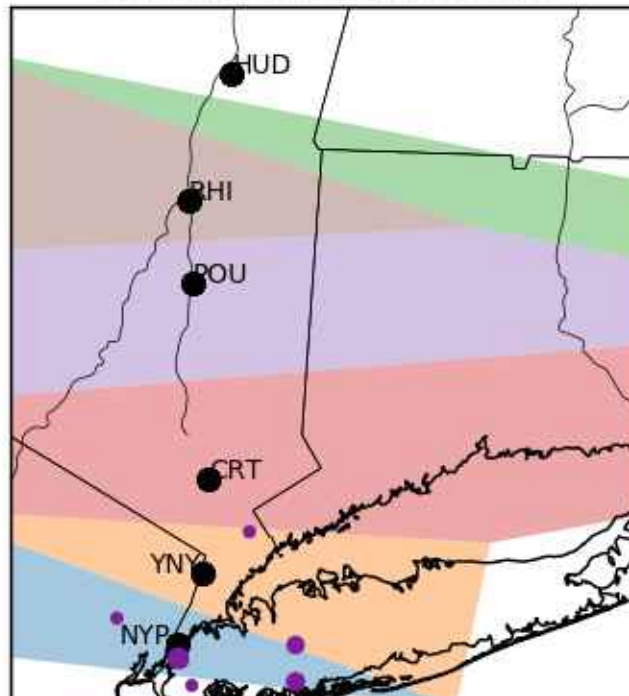
From the result we get, we assume X as household total income and derive the prediction equation I:

$$p = 1 - \frac{1}{1 + e^{0.831 - 0.222x}}$$

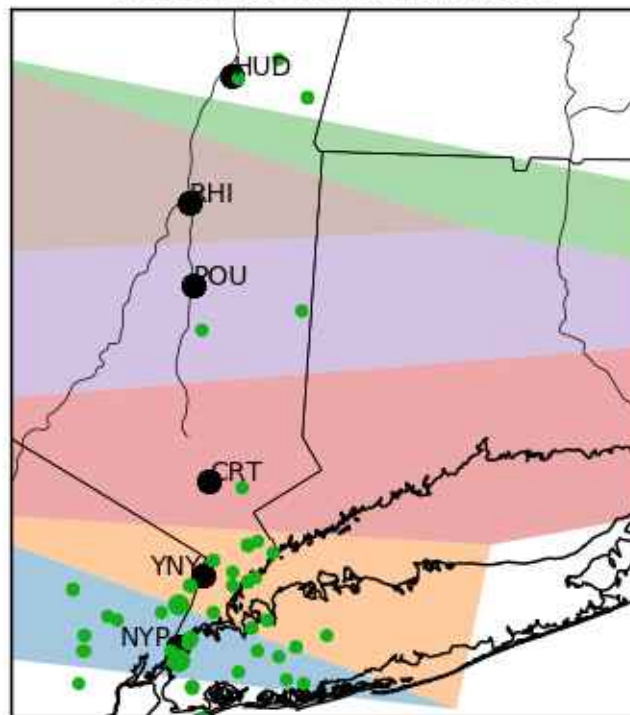
Where : X is categorized into six groups, 1 for below 30,000; 2 for 30,000 to 70,000; 3 for 70,000 to 100,000; 4 for 100,000 to 150,000; 5 for 150,000 to 200,000; 6 for above 200,000.

Appendix G: Maps of Tax Bill Addresses

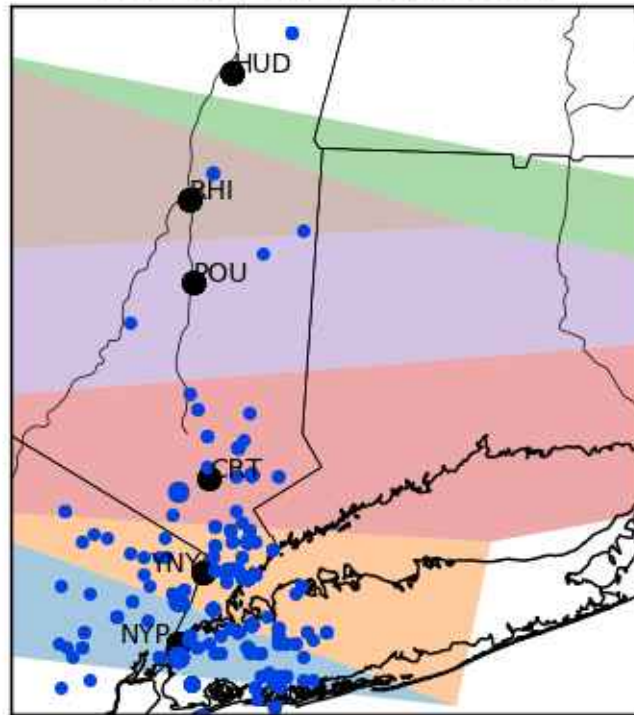
Tax Bills Mailed from Adams



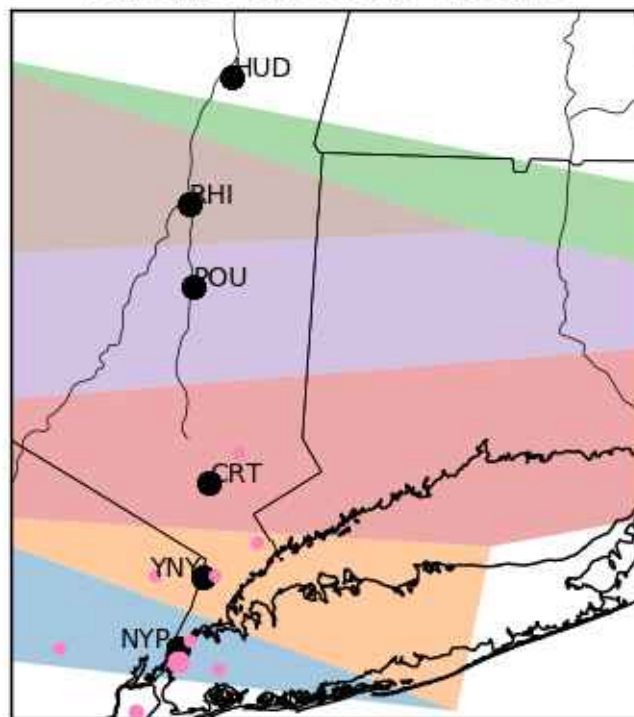
Tax Bills Mailed from Alford



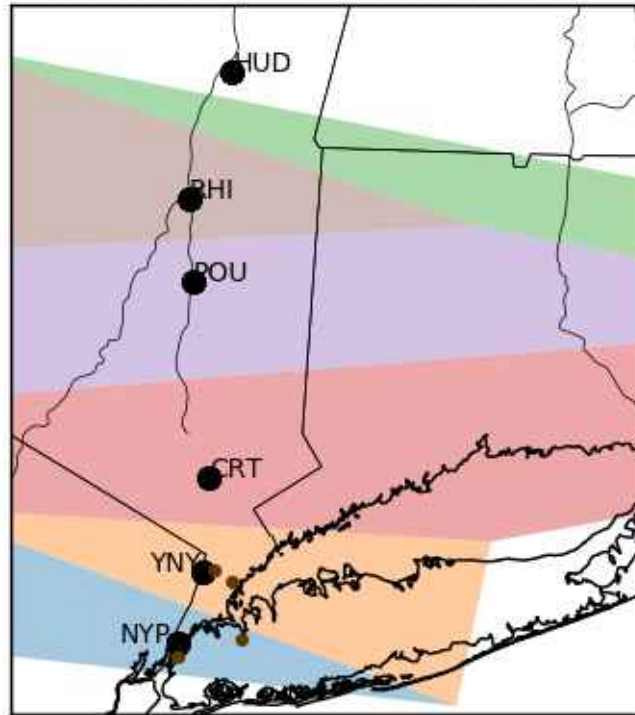
Tax Bills Mailed from Becket



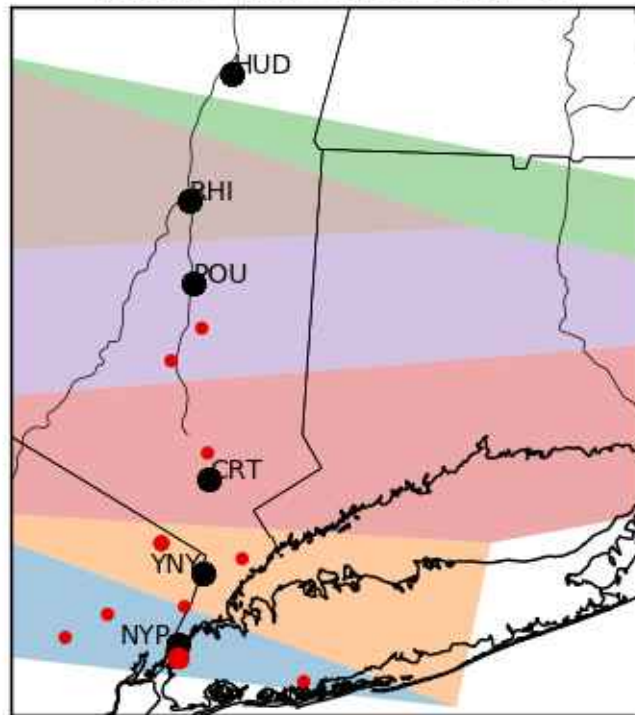
Tax Bills Mailed from Cheshire



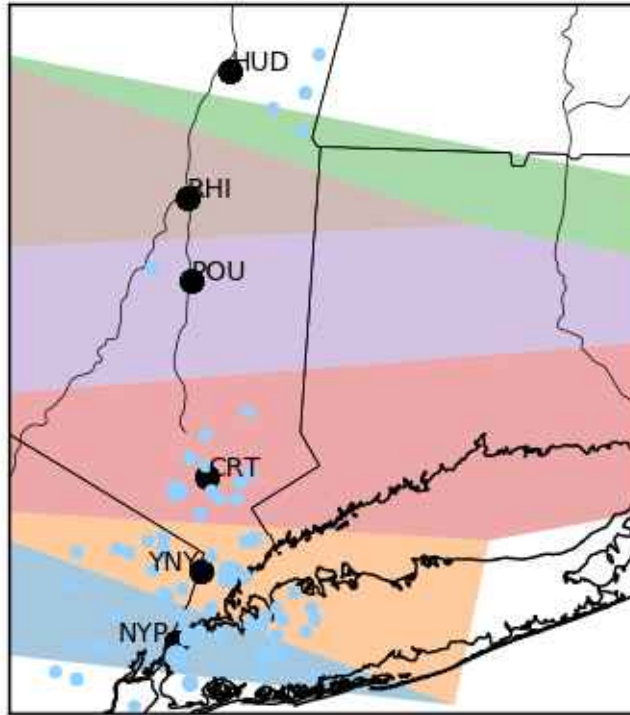
Tax Bills Mailed from CLARKSBURG



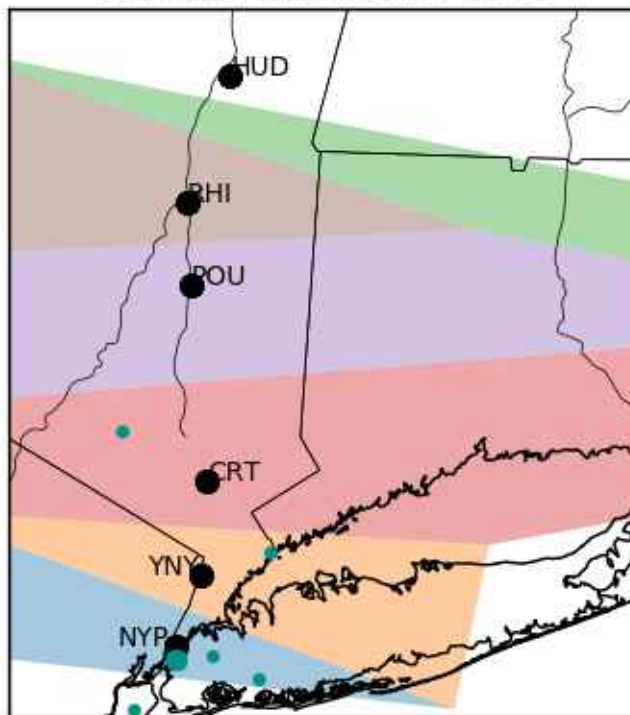
Tax Bills Mailed from DALTON



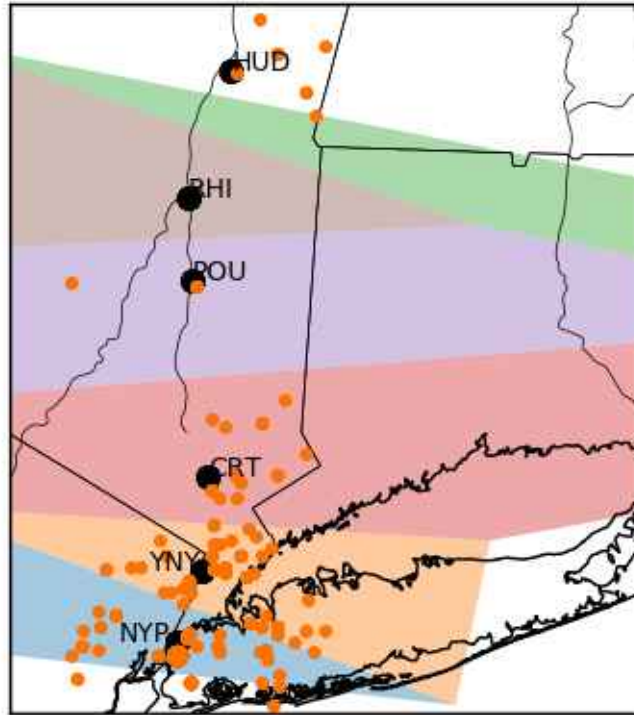
Tax Bills Mailed from Egremont



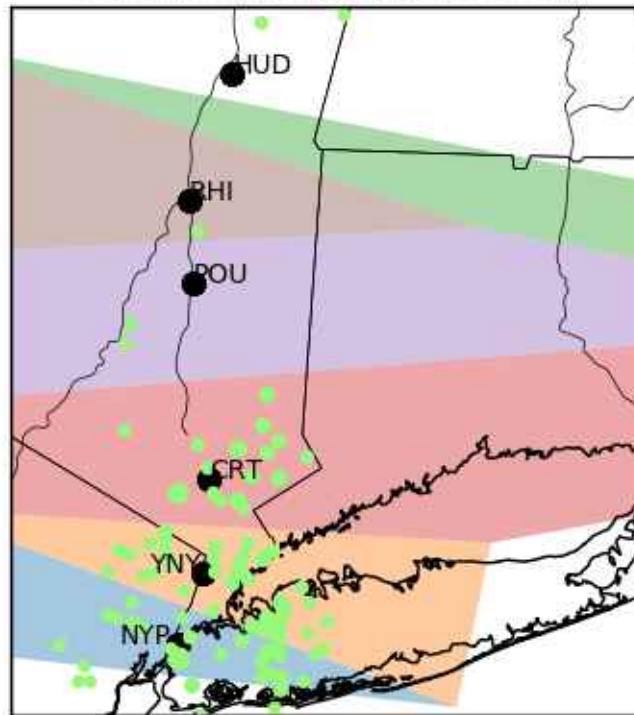
Tax Bills Mailed from Florida



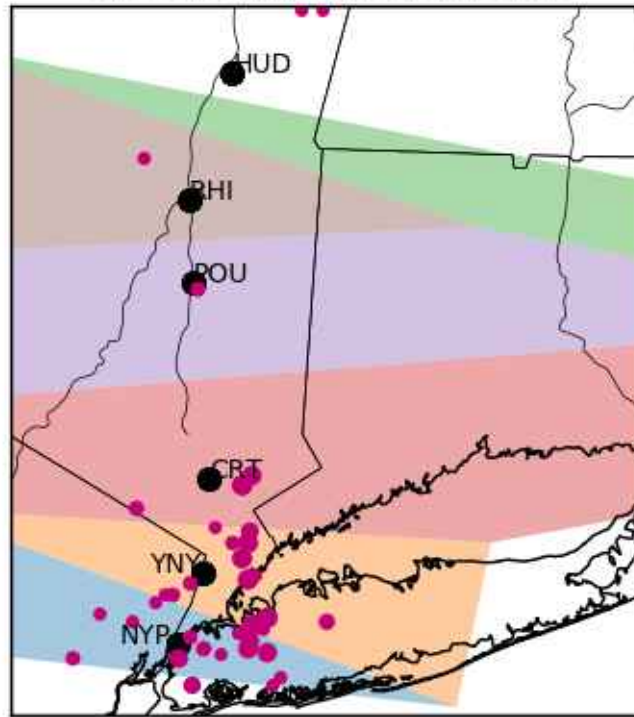
Tax Bills Mailed from Great Barrington



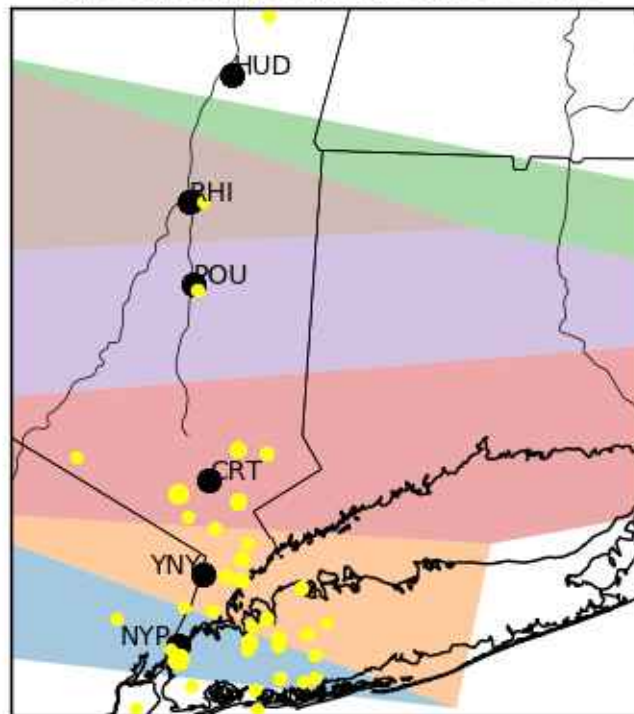
Tax Bills Mailed from HANCOCK



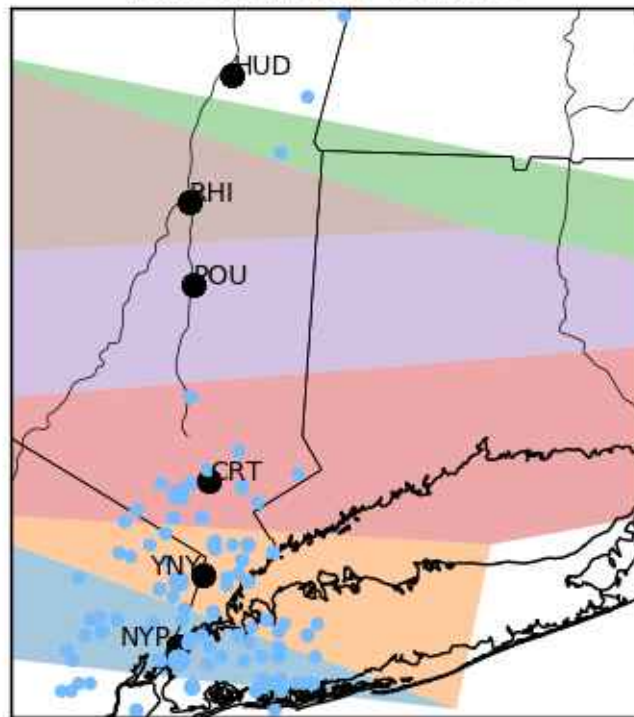
Tax Bills Mailed from Hinsdale



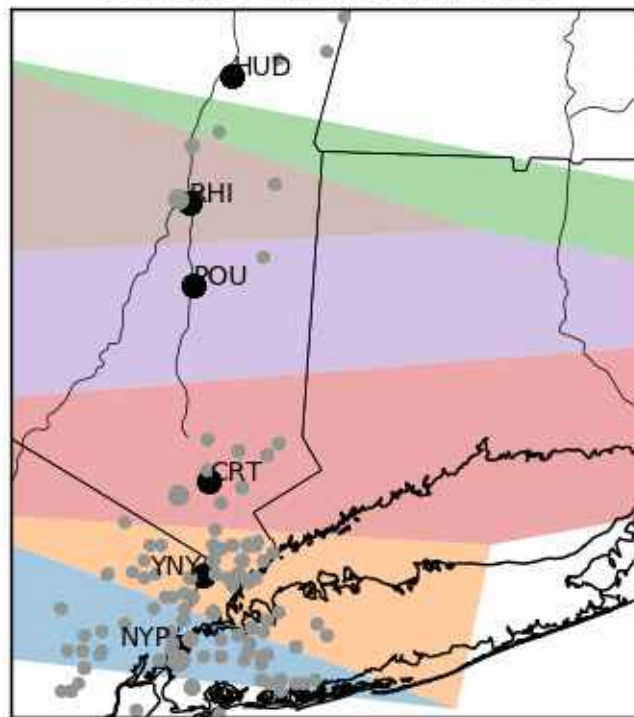
Tax Bills Mailed from LANESBORO



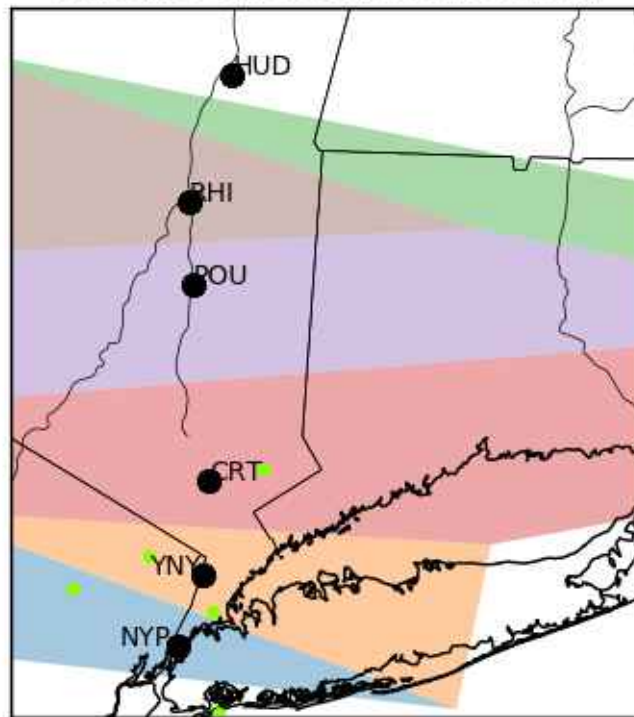
Tax Bills Mailed from Lee



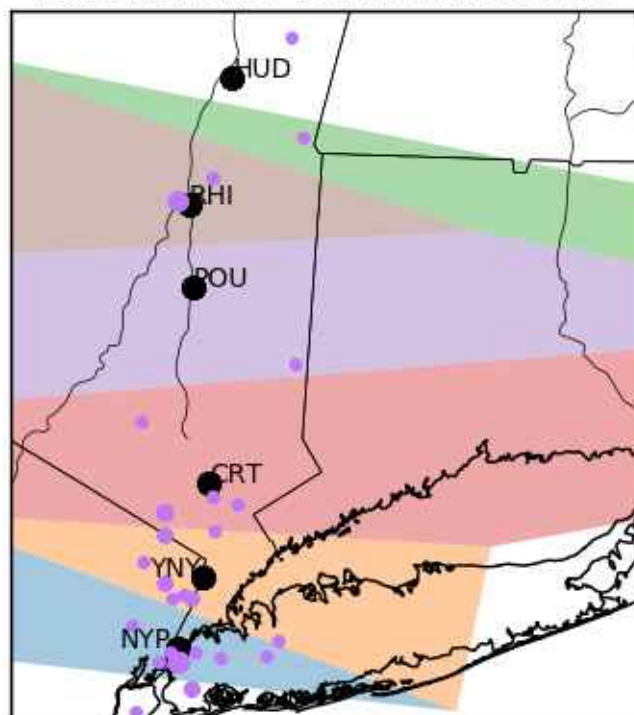
Tax Bills Mailed from LENOX



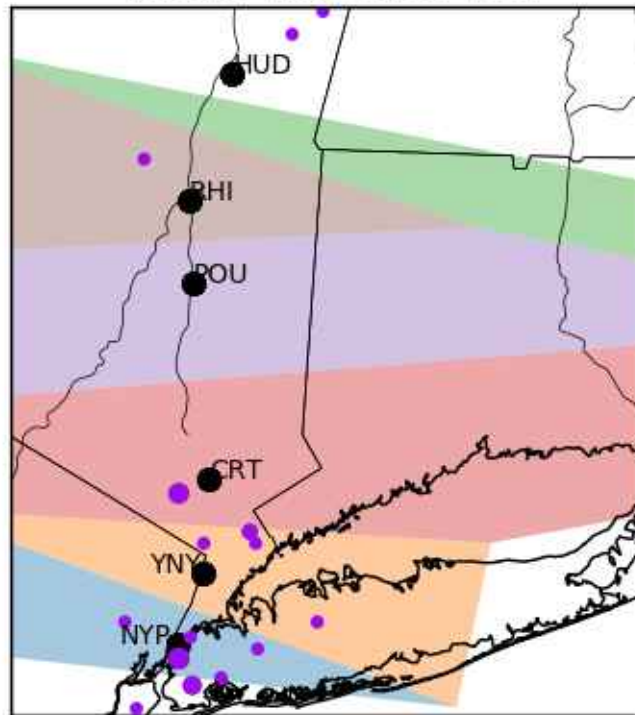
Tax Bills Mailed from New Ashford



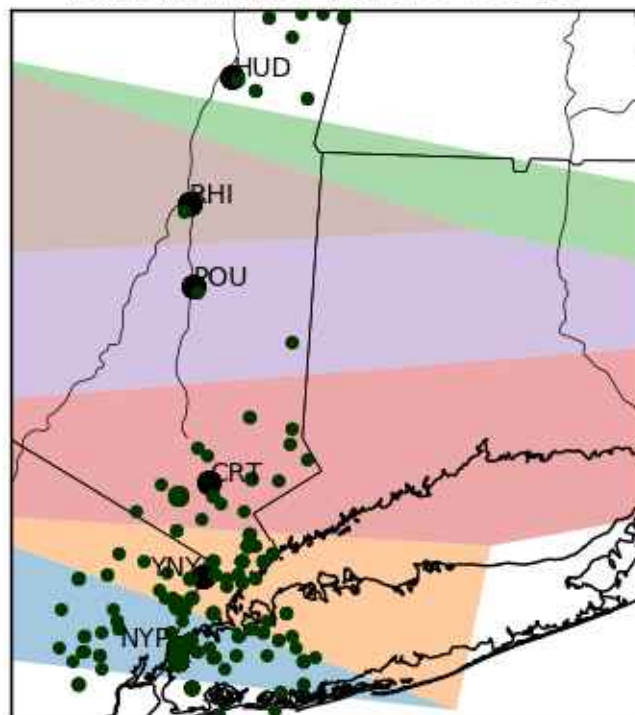
Tax Bills Mailed from NORTH ADAMS



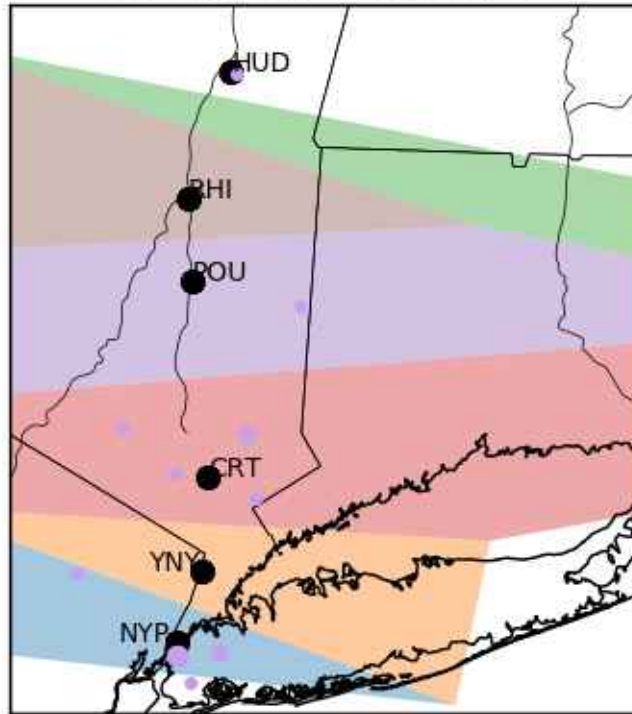
Tax Bills Mailed from Peru



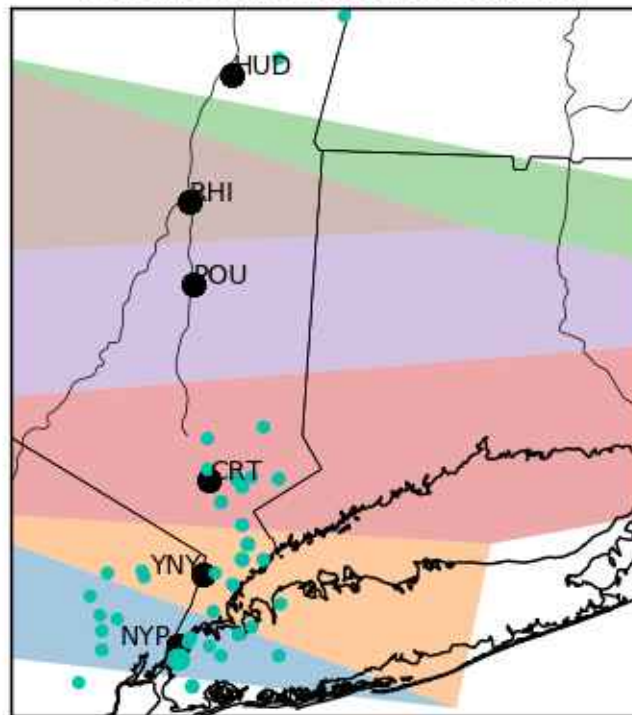
Tax Bills Mailed from PITTSFIELD



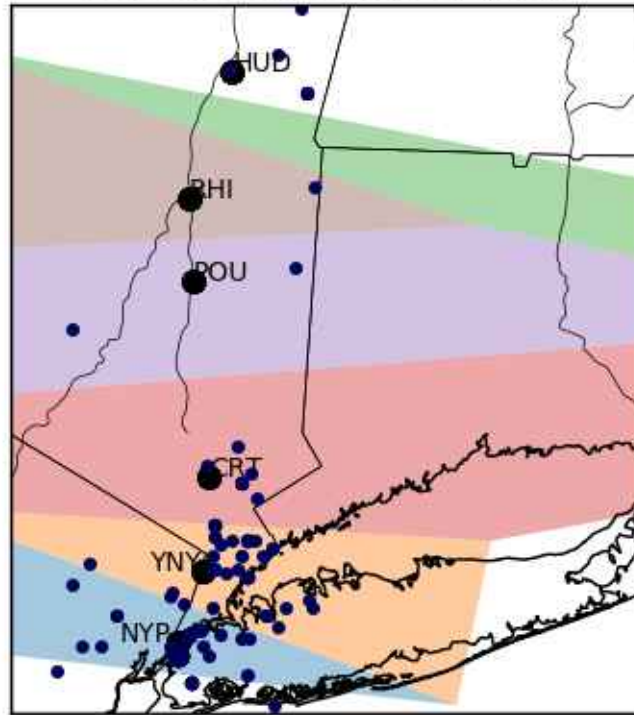
Tax Bills Mailed from SAVOY



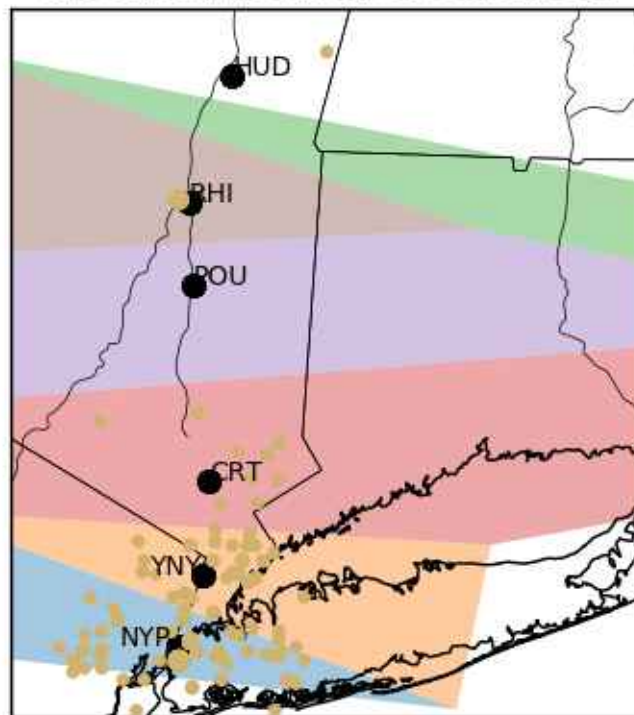
Tax Bills Mailed from Richmond



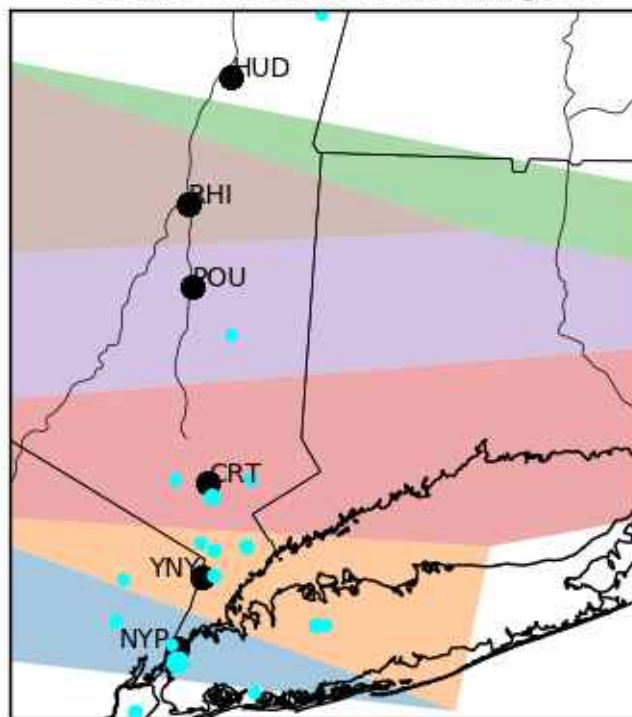
Tax Bills Mailed from Sheffield



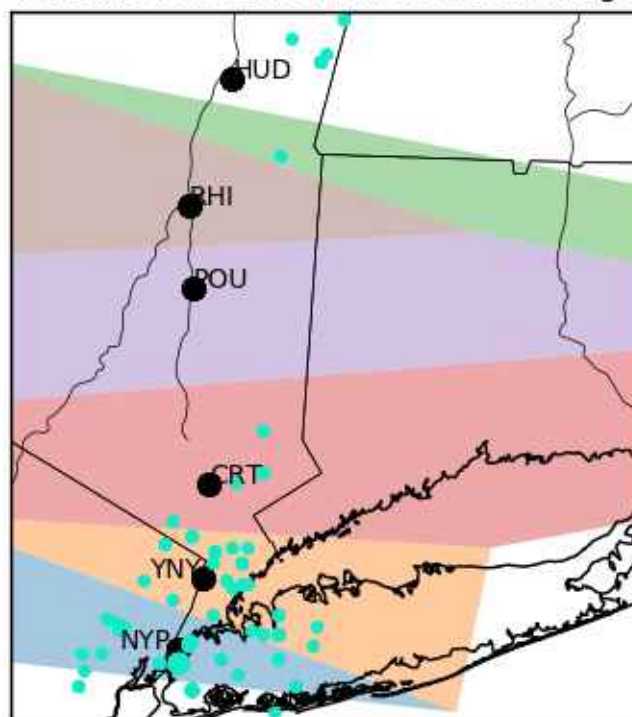
Tax Bills Mailed from STOCKBRIDGE



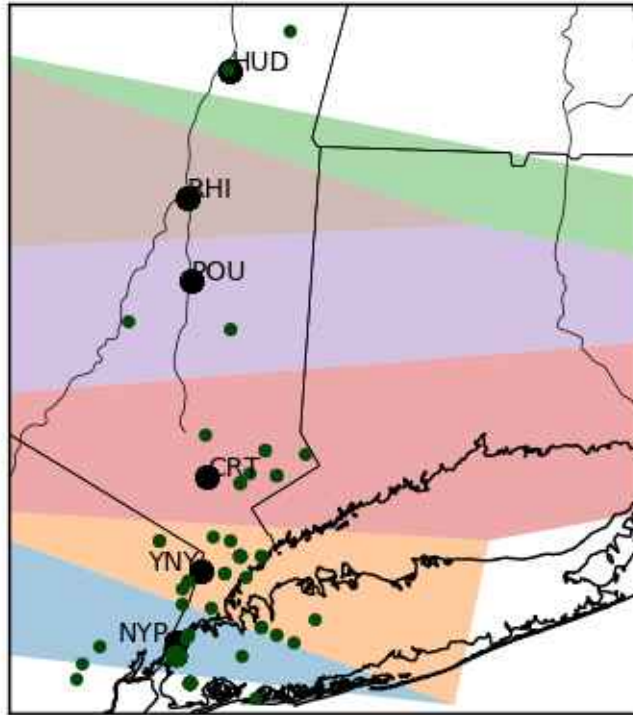
Tax Bills Mailed from Washington



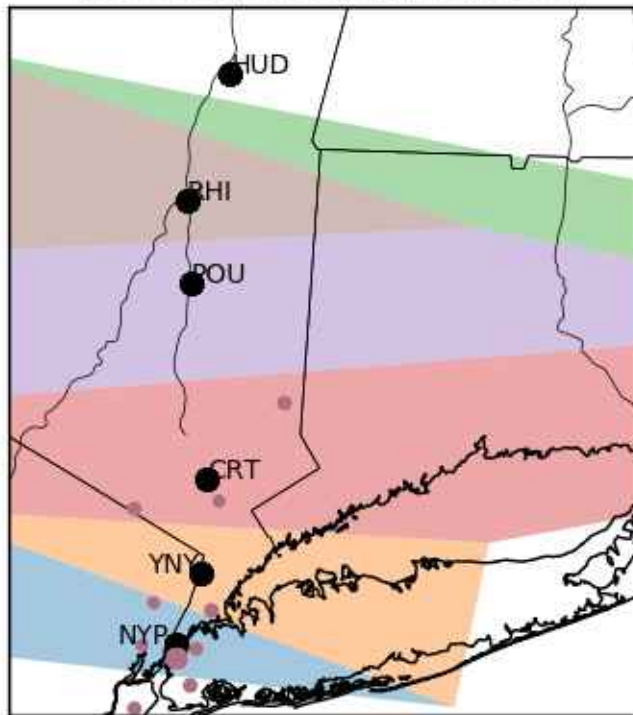
Tax Bills Mailed from West Stockbridge



Tax Bills Mailed from WILLIAMSTOWN



Tax Bills Mailed from WINDSOR



Appendix H: python Script for Generating City Maps Using MassGIS Data

```
#!/usr/bin/python
#
# Written by Erin Kiley <emkiley@mcla.edu>, latest revision Dec 18, 2017

from mpl_toolkits.basemap import Basemap # for drawing map
import matplotlib.pyplot as plt
import numpy as np
import re

import zipcodes
import geopy.distance # for computing distance between coordinates

from scipy.spatial import Voronoi

import glob # for listing .xlsx files

import openpyxl # for reading Excel files
from openpyxl.utils import get_column_letter, column_index_from_string

def is_number(s):
    try:
        float(s)
        return True
    except ValueError:
        pass

    try:
        import unicodedata
        unicodedata.numeric(s)
        return True
    except (TypeError, ValueError):
        pass
    return False

def check_dist_to_stations(lat,long,sta_lat,sta_long): # using Vicenty distance formula
    dists=[]
    coords_to_check = (long,lat)
    for i in range(0,len(sta_lat)):
        station_coords = (sta_long[i],sta_lat[i])
        dists.append(geopy.distance.vincenty(station_coords,coords_to_check).miles)
    #print dists
    return (min(dists),dists.index(min(dists)))

def get_zips(wbname): # gets addresses from specified Excel file, saves as array of strings
    wb = openpyxl.load_workbook(wbname)
    sheet = wb.active
    zips=[]
    unique_addr = []
    for i in range(2,sheet.max_row):
        addr = sheet.cell(row=i,column=column_index_from_string("R")).value
        if addr and addr not in unique_addr:
            unique_addr.append(str(addr))
            state = sheet.cell(row=i,column=column_index_from_string("U")).value
            if state:
                state = str(state)
                if state=="NY" or state=="NJ": # pick just the NY or NJ state addresses
                    ZIP = sheet.cell(row=i,column=column_index_from_string("V")).value
                    if ZIP:
                        ZIP = str(ZIP)
                        ZIP = re.findall('\d+',ZIP)[0] # gets the first number in the string
                        (avoids any ZIP+4 issues, and gets a too-short number from non-US codes with alphabetic
                        characters)
                        if zipcodes.is_valid(ZIP):
```

```

        zipdata = zipcodes.matching(ZIP)[0]
        zips.append(zipdata.get("zip_code"))
    return (zips, sheet.max_row)

def get_unique_zips(zips):
    skinny_zips = list(set(zips)) # gets unique values
    counts = [zips.count(zip) for zip in skinny_zips] # counts occurrences
    return (skinny_zips, counts)

def get_coords(zips):
    lats = []
    longs = []
    for zip in zips:
        zipdata = zipcodes.matching(str(zip))[0]
        lats.append(zipdata.get("lat"))
        longs.append(zipdata.get("long"))
    return (lats, longs)

def get_cityname(wbname):
    wb = openpyxl.load_workbook(wbname)
    sheet = wb.active
    cityname = sheet.cell(row=2, column=column_index_from_string('P')).value
    return cityname

def
get_data(lats, longs, fcity, fcityny30, fny30, fcityny50, fny50, station_latitudes, station_longitu
des): # gets coordinates from addresses, saves as coordinates
    lat30 = []
    long30 = []
    lat50 = []
    long50 = []
    station50=[0]*len(station_latitudes)
    station30=[0]*len(station_latitudes)
    for lat, long in zip(lats, longs):
        fcity.write(str(lat)+" , "+str(long)+"\n")
        (dist_to_stations, which_sta) =
check_dist_to_stations(lat, long, station_latitudes, station_longitudes)
        #print dist_to_stations
        if dist_to_stations <= 30.0 :
            lat30.append(lat)
            long30.append(long)
            fcityny30.write(str(long)+" , "+str(lat)+"\n")
            fny30.write(str(long)+" , "+str(lat)+"\n")
            lat50.append(lat)
            long50.append(long)
            fcityny50.write(str(long)+" , "+str(lat)+"\n")
            fny50.write(str(long)+" , "+str(lat)+"\n")
            station30[which_sta]=station30[which_sta]+1
            station50[which_sta]=station50[which_sta]+1
        elif dist_to_stations <= 50.0 :
            fcityny50.write(str(long)+" , "+str(lat)+"\n")
            fny50.write(str(long)+" , "+str(lat)+"\n")
            lat50.append(lat)
            long50.append(long)
            station50[which_sta]=station50[which_sta]+1
    return (lat30, long30, lat50, long50, station30, station50)

def voronoi_finite_polygons_2d(vor, radius=None):
    """
    Reconstruct infinite voronoi regions in a 2D diagram to finite
    regions.

    Parameters
    -----
    vor : Voronoi
    Input diagram

```

```

    radius : float, optional
    Distance to 'points at infinity'.

    Returns
    -----
    regions : list of tuples
    Indices of vertices in each revised Voronoi regions.
    vertices : list of tuples
    Coordinates for revised Voronoi vertices. Same as coordinates
    of input vertices, with 'points at infinity' appended to the
    end.
"""

if vor.points.shape[1] != 2:
    raise ValueError("Requires 2D input")

new_regions = []
new_vertices = vor.vertices.tolist()

center = vor.points.mean(axis=0)
if radius is None:
    radius = vor.points.ptp().max()

# Construct a map containing all ridges for a given point
all_ridges = {}
for (p1, p2), (v1, v2) in zip(vor.ridge_points, vor.ridge_vertices):
    all_ridges.setdefault(p1, []).append((p2, v1, v2))
    all_ridges.setdefault(p2, []).append((p1, v1, v2))

# Reconstruct infinite regions
for p1, region in enumerate(vor.point_region):
    vertices = vor.regions[region]

    if all(v >= 0 for v in vertices):
        # finite region
        new_regions.append(vertices)
        continue

    # reconstruct a non-finite region
    ridges = all_ridges[p1]
    new_region = [v for v in vertices if v >= 0]

    for p2, v1, v2 in ridges:
        if v2 < 0:
            v1, v2 = v2, v1
        if v1 >= 0:
            # finite ridge: already in the region
            continue

        # Compute the missing endpoint of an infinite ridge

        t = vor.points[p2] - vor.points[p1] # tangent
        t /= np.linalg.norm(t)
        n = np.array([-t[1], t[0]]) # normal

        midpoint = vor.points[[p1, p2]].mean(axis=0)
        direction = np.sign(np.dot(midpoint - center, n)) * n
        far_point = vor.vertices[v2] + direction * radius

        new_region.append(len(new_vertices))
        new_vertices.append(far_point.tolist())

    # sort region counterclockwise
    vs = np.asarray([new_vertices[v] for v in new_region])
    c = vs.mean(axis=0)
    angles = np.arctan2(vs[:,1] - c[1], vs[:,0] - c[0])

```

```

new_region = np.array(new_region)[np.argsort(angles)]

# finish
new_regions.append(new_region.tolist())
return new_regions, np.asarray(new_vertices)

# Define marker colors
colors =
['xkcd:purple','xkcd:green','xkcd:blue','xkcd:pink','xkcd:brown','xkcd:red','xkcd:light
blue','xkcd:teal','xkcd:orange','xkcd:light green','xkcd:magenta','xkcd:yellow','xkcd:sky
blue','xkcd:grey','xkcd:lime green','xkcd:light purple','xkcd:violet','xkcd:dark
green','xkcd:turquoise','xkcd:lavender','xkcd:dark
blue','xkcd:tan','xkcd:cyan','xkcd:aqua','xkcd:forest green','xkcd:mauve','xkcd:dark
purple','xkcd:bright
green','xkcd:maroon','xkcd:olive','xkcd:salmon','xkcd:beige','xkcd:royal blue','xkcd:navy
blue','xkcd:lilac','xkcd:black','xkcd:hot pink','xkcd:light brown','xkcd:pale
green','xkcd:peach','xkcd:olive green','xkcd:dark pink']

# Define city landmarks
landmark_names = ['Paterson','Edison','Elizabeth','Newark','Yonkers','White
Plains','Hempstead','West Point']
landmark_longitudes = [-74.173,-74.407,-74.21,-74.171,-73.9034,-73.762,-73.6216,-73.957449]
landmark_latitudes = [40.923,40.511,40.66,40.73,40.926,41.0326,40.7027,41.38992]

# Define stations for Voronoi diagram
station_names = ["NYP","YNY","HUD","CRT","POU","RHI"]
station_longitudes = [-73.993292,-73.902465,-73.798168,-73.882433,-73.937663,-73.951372]
station_latitudes = [40.750322,40.935544,42.253805,41.189614,41.707077,41.921154]

# Draw base maps
plt.figure(1)
bigmap = Basemap(projection='merc', lat_0 = 41, lon_0 = -74,
                  resolution = 'f', area_thresh = 0.1,
                  llcrnrlon=-74.5789, llcrnrlat=40.557,
                  urcrnrlon=-72.36, urcrnrlat=42.43)

x,y = bigmap(station_longitudes,station_latitudes)
x_offsets = [-22500,-21000,0,0,0,0]
y_offsets = [0,0,0,0,0,0]
for label, xpt, ypt, x_offset, y_offset in zip(station_names, x, y,x_offsets,y_offsets):
    plt.text(xpt+x_offset, ypt+y_offset, label)
points = np.column_stack((x,y))
vor = Voronoi(points)
regions,vertices = voronoi_finite_polygons_2d(vor)
#print "---"
#print regions
#print "---"
#print vertices
for region in regions:
    polygon = vertices[region]
    plt.fill(*zip(*polygon),alpha=0.4)
plt.plot(points[:,0],points[:,1], 'ko',markersize=4)
plt.xlim(vor.min_bound[0] - 0.1, vor.max_bound[0] + 0.1)
plt.ylim(vor.min_bound[1] - 0.1, vor.max_bound[1] + 0.1)

bigmap.drawcoastlines()
bigmap.drawcountries()
#bigmap.fillcontinents(color = 'coral')
#bigmap.drawmapboundary(fill_color='aqua')
bigmap.drawstates()
bigmap.drawrivers()

filenames = ["NewAshford.xlsx"]
filenames = glob.glob('*.*xlsx') # List all .xlsx files in an array
color_index=0 # Starting index for cycling through marker colors

```

```

allny30 = open("All 30mi Coords.txt",'a')
allny50 = open("All 50mi Coords.txt",'a')
allreport = open("Report.txt",'w')

allreport.write("Report automatically generated by Python on the basis of MassGIS
data.\n\n'NY/NJ' refers to the number of tax bills mailed to New York or New Jersey
addresses; '30 mile' and '50 mile' headings refer to the number of tax bills mailed to
addresses within 30 or 50 miles (respectively) of one of the following stations: NYP, YNY,
CRT, POU, RHI, HUD. Headings 'NYP30' and 'NYP50' refer to the number of tax bills mailed to
addresses within 30 or 50 miles (respectively) of NYP station; similarly for other
stations. \n\nCity name \t Total tax bills \t NY/NJ \t 30 mile \t 50 mile \t NYP30 \t NYP50
\t YNY30 \t YNY50 \t CRT30 \t CRT50 \t POU30 \t POU50 \t RHI30 \t RHI50 \t HUD30 \t
HUD50 \n\n")

for file in filenames: # for each city
    cityname = get_cityname(file) # get the city's name
    print("Generating data and map for "+cityname+"...")
    cityny30 = open(cityname+"_30mi_Coords.txt",'w')
    cityny50 = open(cityname+"_50mi_Coords.txt",'w')
    citycoords = open(cityname+"_NYNJ_Coords.txt",'w')
    (zips,num_addrs) = get_zips(file) # get the ZIP codes for city tax bills
    #(zips,zip_counts) = get_unique_zips(zips)
    (lats,longs) = get_coords(zips) # get latitudes and longitudes for ZIP codes
    (lat30,long30,lat50,long50,station30,station50) =
get_data(lats,longs,citycoords,cityny30,allny30,cityny50,allny50,station_latitudes,station_
longitudes) # get all the latitudes and longitudes for the city tax bills
    allreport.write(cityname+"\t"+str(num_addrs)+"\t"+str(len(lats))+"\t"+str(len(lat30))+"
\t"+str(len(lat50))+"\t"+str(station30[0])+"\t"+str(station50[0])+"\t"+str(station30[1])+"
\t"+str(station50[1])+"\t"+str(station30[3])+"\t"+str(station50[3])+"\t"+str(station30[4])+"
\t"+str(station50[4])+"\t"+str(station30[5])+"\t"+str(station50[5])+"\t"+str(station30[2])+"
\t"+str(station50[2])+"\t"+str(station30[2])+"\t"+str(station50[2])+"\n")
    print(cityname+"\t"+str(num_addrs)+"\t"+str(len(lats))+"\t"+str(len(lat30))+"\t"+str(le
n(lat50))+"\t"+str(station30[0])+"\t"+str(station50[0])+"\t"+str(station30[1])+"\t"+str(sta
tion50[1])+"\t"+str(station30[3])+"\t"+str(station50[3])+"\t"+str(station30[4])+"\t"+str(st
ation50[4])+"\t"+str(station30[5])+"\t"+str(station50[5])+"\t"+str(station30[2])+"\t"+str(s
tation50[2])+"\t"+str(station30[2])+"\n")

    dot_color=colors[color_index] # get the color for the dots

    if long30:
        plt.figure(1)
        counts = [long30.count(long) for long in long30] # counts the number of occurrences
of each ZIP code
        maxct = max(counts)
        minct = min(counts)
        for i in range(1,len(long30)): # for each coordinate until the last one
            x,y = bigmap(long30[i],lat30[i]) # get lat/long attributes for overall bigmap
            if maxct == minct:
                themarksize = 1
            else:
                themarksize = 3.0*(counts[i]-minct)/(maxct-minct) + 1.0
            bigmap.plot(x,y,color=dot_color,marker='o',markersize=themarksize) # add marker
to overall bigmap, scaled by number of plots

        plt.figure(3)
        plt.clf()
        city_bigmap = Basemap(projection='merc', lat_0 = 41, lon_0 = -74,
                                resolution = 'f', area_thresh = 0.1,
                                llcrnrlon=-74.5789, llcrnrlat=40.557,
                                urcrnrlon=-72.36, urcrnrlat=42.43)

        x,y = city_bigmap(station_longitudes,station_latitudes)
        x_offsets = [-22500,-21000,0,0,0,0]
        y_offsets = [0,0,0,0,0,0]

```



```

        for label, xpt, ypt, x_offset, y_offset in zip(station_names, x,
y,x_offsets,y_offsets):
            plt.text(xpt+x_offset, ypt+y_offset, label)
            points = np.column_stack((x,y))
            vor = Voronoi(points)
            regions,vertices = voronoi_finite_polygons_2d(vor)
            #print "--"
            #print regions
            #print "--"
            #print vertices
            for region in regions:
                polygon = vertices[region]
                plt.fill(*zip(*polygon),alpha=0.4)
                plt.plot(points[:,0],points[:,1],'ko',markersize=8)
                plt.xlim(vor.min_bound[0] - 0.1, vor.max_bound[0] + 0.1)
                plt.ylim(vor.min_bound[1] - 0.1, vor.max_bound[1] + 0.1)
            city_bigmap.drawcoastlines()
            city_bigmap.drawcountries()
            city_bigmap.drawstates()
            city_bigmap.drawrivers()
            #city_bigmap.fillcontinents(color = 'coral')
            city_bigmap.drawmapboundary()
            for i in range(1,len(long30)): # for each coordinate until the last one
                x,y = city_bigmap(long30[i],lat30[i]) # get lat/long attributes for city bigmap
                if maxct == minct:
                    themarksize = 4
                else:
                    themarksize = 3.0*(counts[i]-minct)/(maxct-minct) + 4.0
                city_bigmap.plot(x,y,color=dot_color,marker='o',markersize=themarksize) # add
marker to city bigmap
            #x,y = city_bigmap(landmark_longitudes, landmark_latitudes)
            #for label, xpt, ypt in zip(landmark_names, x, y):
            #    plt.text(xpt, ypt, label)
            plt.title('Tax Bills Mailed from '+cityname)
            plt.savefig(cityname+"_bigmap.png")

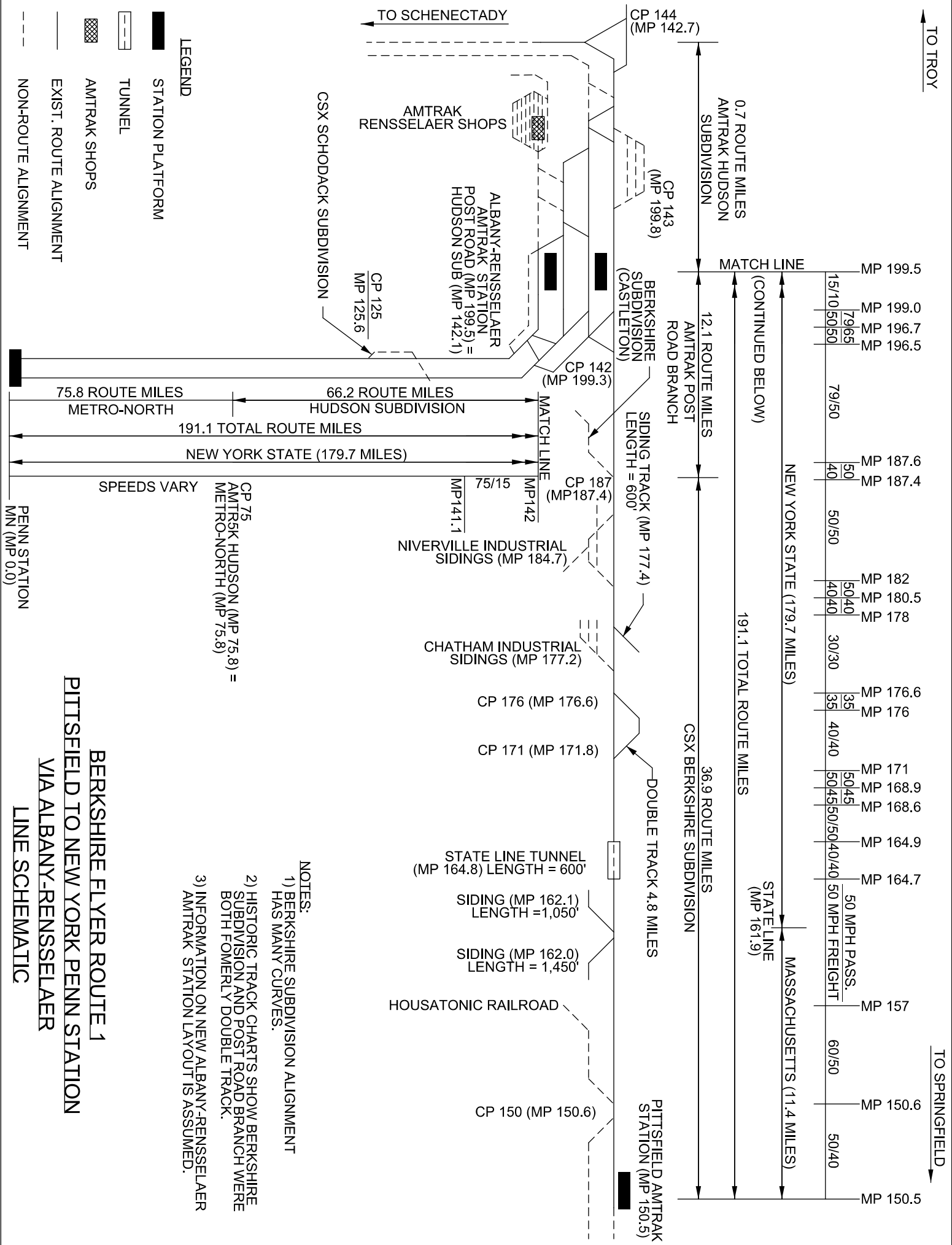
            color_index=color_index+1 # change the color index for the next city
            cityny30.close()
            cityny50.close()
            citycoords.close()

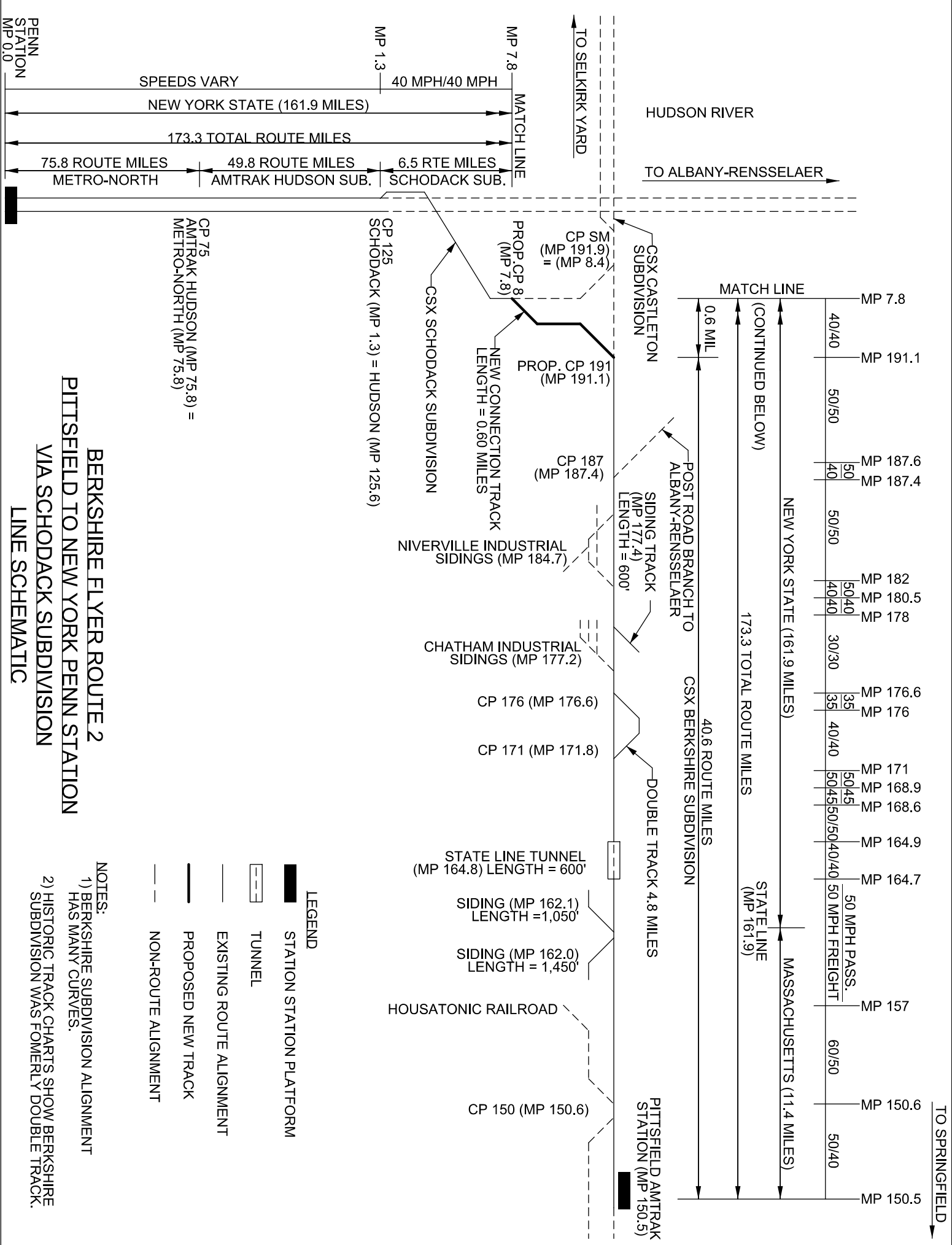
plt.figure(1)
#plt.legend(loc="upper right")
plt.title("All Tax Bills")
#x,y = bigmap(landmark_longitudes,landmark_latitudes)
#for label, xpt, ypt in zip(landmark_names, x, y):
#    plt.text(xpt, ypt, label)
plt.savefig("allbills_bigmap.png")

allny30.close()
allny50.close()
allreport.close()

```

**APPENDIX D –
Berkshire Flyer Route Alternative Schematic Plans**





APPENDIX E – CSX Passenger Train Access Principles

CSX Passenger Train Access Principles

America's freight railroads are critical to the nation's economy, providing safe, efficient, economical and environmentally beneficial freight service that is so vital to our communities, our businesses and industries and our way of life.

CSX recognizes the important benefits that passenger rail service can provide to the public, including reducing traffic congestion and avoiding expensive highway construction. At the same time, CSX has a responsibility to all of its stakeholders, including rail freight rail shippers, to preserve and protect the substantial public benefits it delivers through freight rail transportation.

The rail industry has been investing billions of dollars every year in privately-owned freight rail infrastructure. These investments resulted in significant improvements in service for the nation's shippers and considerable benefits to the overall US economy. As a result the industry has entered a "rail renaissance" characterized by new demand from shippers and public policy interest in moving more goods by rail.

Future agreements for passenger access to freight rail lines must therefore balance the nation's desire for additional rail passenger services with railroads' critical role in carrying freight that otherwise would be diverted onto an already crowded and often underfunded highway network.

Based on this expectation, CSX established the following protocols for working with public agencies interested in conducting feasibility studies and implementing passenger rail:

Studies

- CSX will consider reasonable proposals for new or expanded passenger rail service that are viable financially and operationally and do not adversely impact freight operations.
- Studies will be conducted by CSX, or consultants approved by CSX, and will be paid for by the requesting planning agency. A primary goal of the studies will be to preserve freight rail capacity while striving to accommodate any new proposed passenger service.

Feasible separation of freight and passenger operation

- Many freight corridors are already at capacity and require expansions to handle future freight growth. CSX cannot consider proposals for shared use of such corridors, or sell property along such corridors that would compromise CSX's ability to serve current or future customer needs. We will encourage planning agencies to consider a separate right of way for new or expanded services in such corridors.
- One way to achieve such separation is to move the majority of freight trains out of urban corridors. CSX will consider publicly funded relocations of freight operations if they preserve CSX's customer service, competitive position, and access to current and future freight customers.

Where separation or relocation is not feasible but freight operations can be protected, passenger trains may, in some cases, share CSX's tracks, provided certain principles for shared use operations are properly addressed:

Safety

- Adding passenger service must not compromise safety. Planning Agencies must meet and fund any required safety infrastructure.

Capacity

- Any addition or expansion of passenger rail service on the freight rail network must ensure that the capacity utilized for the new service is fully replaced at no cost to CSX. This capacity must allow CSX to safely and efficiently handle all current and future freight demand, not just enough to address current conditions or to cover a few years
- CSX's ability to locate new freight customers along the right of way must also be preserved. Service to freight customers must be protected and should not be compromised or limited by new passenger rail service.
- CSX will not participate in so-called Service Outcome Agreements.

Compensation

- CSX must be fully compensated for its costs in planning and hosting passenger rail service. The compensation should be sufficient to support future reinvestments in infrastructure to continue providing safe, efficient and environmentally-friendly freight service. CSX and its freight rail customers should not be asked to subsidize passenger service.

Liability

- CSX must be fully protected from any liability arising from the presence of passenger rail service on its freight lines. Any additional service introduces an element of risk and liability that is not related to CSX's core business as a freight rail carrier, and CSX should not be asked to assume such risk.
- Planning agencies should be prepared to carry and provide evidence of insurance covering liability exposure of at least \$200 million, the current limit of liability under federal law for passenger rail claims.

Higher Speed Rail and High Speed Rail

- Higher Speed Rail refers to trains traveling at maximum speeds higher than 79 MPH. CSX requires that any passenger train operating at speeds above 90MPH, including High Speed Rail (defined as trains traveling at speeds higher than 125MPH) be on its own dedicated tracks and right of way, separated by at least 30 ft. from freight rail service. These standards are subject to change as new information and research becomes available consistent with CSX's core value to provide safe rail services to the communities where trains operate.

APPENDIX F – Airbnb Data

CITY	Trips Hosted Inbound	Total Guest Arrivals	Average Guest Stay Length	Average Guests Per Stay
Great Barrington	390	1,350	2.6	3.5
Williamstown	270	780	2.2	2.9
Pittsfield	250	810	2.8	3.2
North Adams	230	520	1.9	2.3
Lenox	140	390	2.4	2.8
Lee	140	420	2.5	3
Becket	120	360	2.6	3
Sheffield	110	410	2.8	3.8
Stockbridge	90	330	3.6	3.6
Monterey	70	300	2.6	4.2
New Marlborough	70	260	2.7	3.7
Otis	60	180	2.5	3
Sandisfield	60	260	2.6	4.3
West Stockbridge	50	130	2.4	2.9
Alford	40	150	2.4	4.3
Adams	30	90	1.8	2.7
Lanesborough	30	100	2.2	3
Hancock	30	110	3	3.9
Tyringham	30	60	2.3	2.2
Housatonic	20	80	2.7	3.3
Cheshire	20	80	2.3	4.7
Savoy	10	30	2.1	2.8
Hinsdale	10	50	2.3	4.4
Richmond	<10			
Dalton	<10			
New Ashford	<10			
Washington	<10			
Peru	<10			
TOTAL	2,270	7,250		

Source (Berkshire Regional Planning Commission)